

Ol. Amygd. Ang.  
S.A.P.

Ol. Anisi Ang.

Ol. Anisi, China  
Star

Ol. Anethi Ang.

Ol. Anthemidi  
Ang.

Ol. Aurantii Dulc.

Ol. Aurantii  
Amara

Ol. Bergamot. Se-  
lecta

Ol. Cajuputi

Ol. Carui Ang.

Ol. Carui Exot.

Ol. Caryophylli

Ol. Cinnamomi  
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lecta

Ol. Menth. Pip.  
Ang.

Ol. Menth. Pip.  
Exot.

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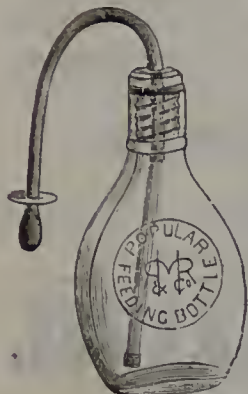
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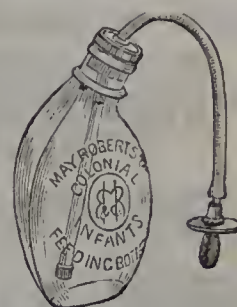
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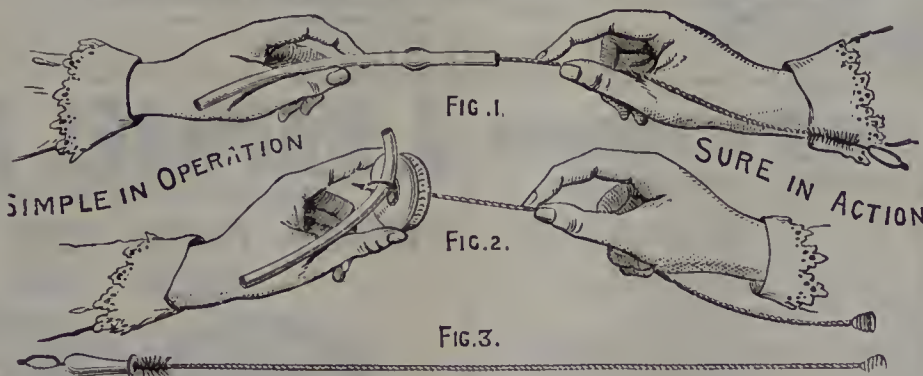
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FIG. 1.



FIG. 2.

BREAST GLASS, as Fig 1, india-rubber and glass mounts, 12/ per dozen.  
" " Fig. 2, " " 15/ "

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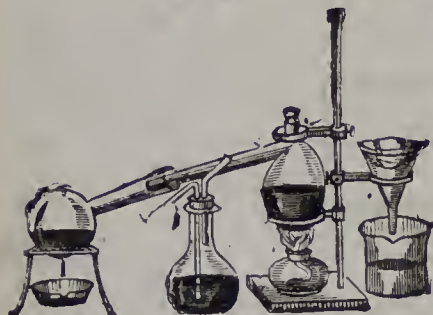
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## MAJOR.

MR. R. DALTON, Wilmslow | MR. A. W. HALSTED, Burnley  
*Being all who entered, and both at their first attempt.*

## MINOR.

Mr. W. E. CLARKE, York	Mr. FOX, Manchester
„ W. H. DYSON, Sheffield	„ J. WILLIAMSON, Maryport
„ W. L. JONES, Crawshaw- booth	„ G. SQUIRE, Sheffield
„ M. HERROD, Lincoln	„ R. SWINDELS, Hyde
	„ THOMSON, Manchester

*All but two at their first attempt.*

During the past year (commencing June, 1890) the following students have been successful, the percentage of passes being over 70 per cent.

## 10 MAJORS.

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„ M. M. WOODWARD	„ E. W. SLEATH
„ F. S. MARSDEN	„ J. H. ANDREW
„ J. FRANKLIN	„ R. DALTON
„ H. HAZLITT	„ A. W. HALSTED

*All but one at their first attempt, and only three failures in the year.*

## 25 MINORS.

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„ W. ROBINSON	„ W. BLAYNEY
„ S. TURNER	„ B. LANCASTER
„ J. H. HEAP	„ W. E. CLARKE
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„ A. H. SWIFT	„ G. SQUIRE
„ C. E. LAWTON	„ J. WILLIAMSON
„ J. S. ARRANDALE	

*Nineteen of whom passed at their first attempt.*

These results furnish proof of the sound instruction imparted, and the efficient method of tuition which the Principal has acquired in his long experience as a teacher of Pharmacy.

No pains are spared to make the work of a lasting character, as well as to meet the requirements of Examination in its most extended form.

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Mr. W. SPENCER TURNER.

Mr. CHARLES TURNER.

At the April Examinations **THREE** Majors (all who entered) and **TEN** Minors (eight at their first attempt) passed from the M.C.P., several being complimented.

## MAJORS.

Mr. J. E. W. McFALL	...	...	Liverpool
„ CLEMENT FIELDING	...	...	Elland
„ J. G. LOBBETT	...	...	Hingham

## MINORS.

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„ A. WILSON	„ J. W. HORNBY
„ W. J. EDEN	„ J. BOLSOVER
„ F. WANLESS	„ F. J. SKIRROW

These Pass Lists will bear comparison with those of last April, especially if it be remembered that six of the Minor Students mentioned in that list had failed at least once previously.

Another noteworthy fact is that while **thirty-four** M.C.P. men passed the Minor at the four Examinations ending at February, 1891, only **thirty-three** passed in the corresponding Examinations of the previous year.

Students wishing to pass at the July Examinations are advised to join the classes without any further delay.



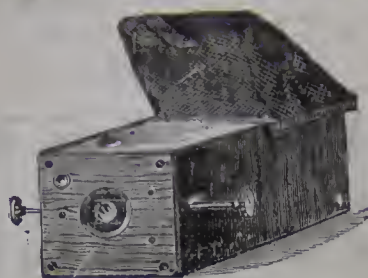
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Fig. 13.

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Fig. 14.

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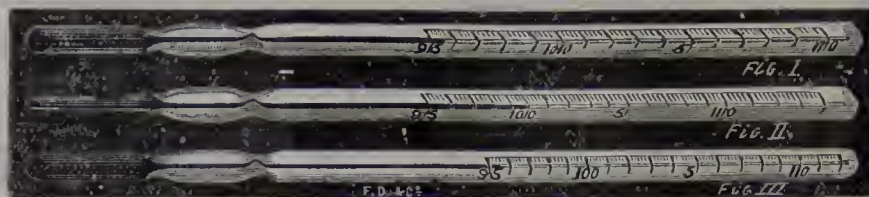


Fig. 18.

Fig. 1.

Fig. 2.

Fig. 3.

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Specie-jar, 20 in. high, 9s.; ditto, 19½ in. high, 15s.; shop-jars, tablets, mahogany stands, &c.; medical books; 12 years' Chemist and Druggist; various sizes plate-glass and plate-glass shelves, list sent; nearly new sewing-machine, genuine Wheeler and Wilson, New York, 2l. 112 High Street, South Woolwich.  
Six dozen saleable patents, and surplus drugs and sundries, from a London Stores just closed; also new 72x36 water-bed, cost 7l. 10s., price 3l. 15s.; Lynch's 1-gallon tincture-press, nearly new, for 2l. 5s.; 4 dozen glass graduated measures, all sizes, cheap. "M.P.S.," 4 Commercial Road, Peckham, S.E.  
For sale.—Outside dental show case, angular, 12 by 22, glass shelves, 8s.; "Yearbook of Pharmacy," 1870 to 1878; Turner's "Chemistry," seventh edition; Atfield's "Chemistry," 1867; Squire's "Companion," 1869; "British Pharmacopoeia," 1867; "Additions," 1874; "Progress of Pharmacy"; Royle's "Materia Medica," 1868; Scott's "British Plants," 1859; Cook's "Botany"; Barber's "Pocket Pharmacopoeia," all in good condition, 15s. the lot. Bartle, Dentist, Greenwich, S.E.

## WANTED.

Copies of The Chemist and Druggist for February 15, 1886. 38/37.  
About 8 feet length mahogany-fronted drawers; desk with glass case; small drug-mill, lowest price. 191/4.  
Six dozen syphons, must be in good condition; state make, and lowest price. Robinson, Chemist, Myton Place, Hull.  
Drawers, 6 or 7 ft. run by 5 or 6 ft. high, good second-hand, for Chemist's back shop; quote with full particulars, carriage paid. Wesley Jones, Llanelli.



## **QUININE PILLS.**

We invite special attention to the UPJOHN process of manufacturing Quinine Pills, believing that it affords a mode of administering this salt that has marked advantages over anything heretofore produced.

The peculiar feature of the Upjohn process is *the making of a pill without excipient or pressure, so that the contents are in the form of a dry powder, surrounded by a thin coating of sugar.*

Our Quinine Pills are virtually a *Powder of Quinine in a Capsule of Sugar.*

### **IS NOT THIS A MANIFEST ADVANTAGE ?**

We prepare the following sizes— $\frac{1}{2}$ , 1, 2, 3, 4 and 5 grains.

All our Pills, embracing over 300 formulæ, are made with the above distinguishing feature.

WHEN ORDERING SPECIFY—

**UPJOHN.**

SAMPLES AND LISTS ON APPLICATION TO

**JOHNSON & JOHNSON, LIM.**

1 & 2 Australian Avenue, Barbican, LONDON, E.C.

NONE GENUINE WITHOUT THE

# TOWER TEA

HIGHEST AWARD, PARIS, 1889.

Analysts by the "LANCET," December 20th, 1890:—

"We have submitted to examination the Teas of the Great Tower Street Tea Company (Limited). They all yield liquors which are generous to the taste, and of full strength and vigour. The results of our analysis indicate the purity and genuineness of the samples."



REGISTERED TRADE MARK.

Where Vacancies exist, Agencies are appointed by

PRIZE MEDAL, PARIS, 1889.

## THE GREAT TOWER STREET TEA CO., LIMITED

5 JEWRY STREET, LONDON, E.C.

### BONSON'S DIGESTIVE TEA.



The Tannin Minimised.

ABSOLUTELY PURE.

EASILY DIGESTED.

SOLD ONLY BY CHEMISTS

Price List on Application.

ADDRESS—

Midland Counties Depot, 29 Carr's Lane, BIRMINGHAM.

### CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S TEAS.

REDUCED IN PRICE 2d. per lb.

### WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1s. 6d. per lb.

A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

### WALKER & DALRYMPLE'S

INTERMEDIATE TEA, 1s. 10d. per lb.

BEST at the PRICE EVER SOLD. Great strength, and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed where unrepresented throughout the United Kingdom.

### WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom. Prospectus and Samples Free on Application.

Warehouses, 154, 155, 159, and 160 WHITECHAPEL ROAD, and

2, 4, 6, 8, 10, 11, and 12 BRADY STREET, LONDON.

P.O.O. payable at head office. Bankers, National Provincial Bank of England

### GEO. MASON & CO.'S ESSENCE OF BEEF.

HOSPITAL FOR CONSUMPTION, BROMPTON.

Order No. 1090.

"Please supply 120 tins Mason's Essence of Beef as before."



TRADE MARK.

### "O.K." BOUILLON.

The "O.K." Bouillon is the best and cheapest Beef Tea ever put before the public. It is made in England from British Beef. It can be sold as low as 6d. per tin.

CONCENTRATED BEEF TEA, MEAT LOZENGES.

MASON'S MALTED FOOD FOR INFANTS.

PRICE LISTS POST FREE.

417 & 419 Kings Road, Chelsea, London, S.W

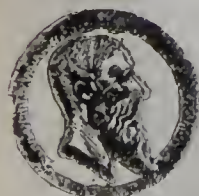
ST. MARY'S HOSPITAL, PADDINGTON.

Order No. 802.

"Please send at once 3 Gross Mason's Essence of Beef."

## "MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 lb. Tins only.



TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS.

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



Write for List of Specialties.



# FEEDING BOTTLES.



THE "BEATRICE."  
Full View.

## THE "BEATRICE"

White Glass Bottle, *Registered* wedge shape, with straight neck and screw glass stopper, best black fittings, each in box, retailing at 1s.  
Per dozen, **7/6.**

The bottle may be laid on *either* side without leaking, and the box is specially adapted for standing the feeder in while filling. An elegant and much-admired feeder.



THE "BEATRICE."  
Side View.

## THE "STANDARD."

644.—Green Flint Bottles, with box-wood top corks, white fittings, per gross ... **£1 3 0**

645.—Ditto, black fittings, per gross ... **£1 6 0**

649.—Green Flint Bottles, with glass screw stoppers, black fittings, per gross ... **£1 16 0**



651.—White Flint Bottles, with glass screw stoppers, black fittings, per gross ... **£2 2 0**

653.—White Flint Bottles, with glass screw stoppers, seamless teat, best black tubing, glass valve tube, with tube and bottle brushes, each in handsome labelled cardboard box, per dozen ... **£0 6 0**

We would especially invite the attention of the Trade to the fact that WE HAVE NOT ADVANCED the prices of our popular "Standard" Feeders, and are still able to receive and execute orders as above.

**ALL THE ABOVE PRICES SUBJECT TO OUR USUAL DISCOUNT.**

Customers' Names and Addresses **FREE OF CHARGE** for orders of Two Gross at one time.

**THOMPSON, WALTERS, HOLE & CO., LIM.**  
**CURTAIN ROAD, LONDON, E.C.**



# SYPHONS & SELTZOGENES



## SODAWATER MACHINERY

AND APPLIANCES

### BRATBY & HINCHLIFFE LTD

ANCOATS & 146 MINORIES

### MANCHESTER & LONDON EC

81 ROBERTSON STREET, GLASGOW.

All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving our works.



### PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

### SELTZOGENES.

1	2	3	4	5	8 pint.
5/6	6/2	7/	8/	9/11	15/6 each.

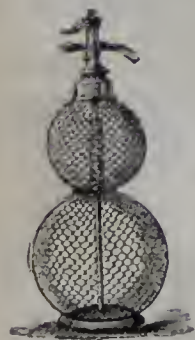
# SYPHONS & SELTZOGENES PORCELAIN LINED HEADS.

## NON-METALLIC.

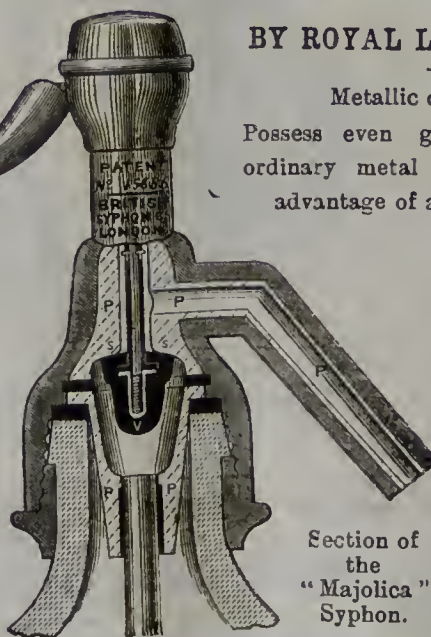
Absolute Purity of the Water ensured. Suitable for all kinds of beverages, sweetened, medicinal, or otherwise. Each Syphon and Seltzogene guaranteed.

BY ROYAL LETTERS PATENT, No. 15686.

Metallic contamination utterly impossible. Possess even greater strength and durability than ordinary metal heads, combined with the immense advantage of always being clean and non-oxidisable.



We still continue to warrant our  
**ORDINARY  
SYPHONS &  
SELTZOGENES,**  
as hitherto,  
to be of the finest  
tin, entirely free  
from lead, and  
FIRST QUALITY  
IN ALL RESPECTS.



Section of the  
"Majolica"  
Syphon.

WRITE  
FOR SAMPLE  
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OPINION OF  
THE ENTIRE  
TRADE PRESS.

Prices and  
Particulars  
on application  
to the  
Patentees and  
Manufacturers.



# THE BRITISH SYPHON MANUFACTURING CO.

EUGSTER & KOERTGEN PROPRIETORS

25 GRESHAM BUILDINGS, GUILDHALL, LONDON, EC.  
WORKS-LAMBETH.



TELEPHONE, No. 7522

TELEGRAPHIC ADDRESS—"IDRIS KENTISH TOWN."

# IDRIS & CO.

The Largest Syphon Fillers in the United Kingdom.

**SODA.** Brilliant, Pungent, and Sparkling.

**POTASH.** Prepared according to the British Pharmacopœia.

**SELTZER.** Pure and Delicious Table Water.

**LITHIA** of guaranteed strength.

**LEMONADE.** Pure fruity flavour of ripe Lemons.

**PURITY.** Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

**ELEGANT SYPHONS.** Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

**LOWEST PRICES** for Water, both in Syphons and Bottles. Write for Price List.

**PROMPT DELIVERY** by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders despatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."

JAMES EDMUNDS, M.D., M.R.C.P. Lond., &c.

Medical Officer of Health and Public Analyst to St. James's, London.

# IDRIS & COMPANY,

KENTISH TOWN, LONDON, N.W.



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## SEASON 1891.

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JEWSBURY & BROWN'S, MANCHESTER, AERATED  
WATERS and BEVERAGES. Specially prepared for a first-  
class Family Trade. Chemists who have not hitherto sold these  
Waters are solicited to apply for Prices and Terms. Trade Lists,  
sample Counter Bills, and Analytical Reports will be sent on  
application. JEWSBURY & BROWN Pay Carriage on Waters  
and Returned Empties within 100 miles of Manchester.

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# "PREMIER BRAND" ESSENTIAL OILS. Concentrated Fruit Essences—Soluble MANUFACTURED BY JOHN CUMMOCK

*Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS,  
besides other Honours.*

Chemists manufacturing their own Aërated Drinks should write for Prices and Samples of the following:—

ESSENCE "SPARKLING LIMETTA"—Soluble "Essence of Lemon"

ESSENCE "LEMON SQUASH"—Essence for Sherbet

ESSENCE "TONIC HEADING"—Essence for Ginger Ale

AND COMPARE WITH OTHER MAKERS.

Manufactory & Offices: 45 ROPE WORK LANE, GLASGOW.  
LATE 32 MAIN STREET.



# NEW ESS. LEMON, ORANGE, ETC.

---

IT is with great pleasure that we have again the opportunity of addressing our numerous friends on the subject of **NEW ESSENCE OF LEMON.**

It is now two years since it was our privilege to inform the trade that we had started a factory in Messina, for the manufacture of the above article. As we fully expected, our bold venture caused our competitors, both here and elsewhere, to raise an opposition against us of a most bitter, unfair, and unscrupulous character. We venture to think that nothing could have been more satisfactory to ourselves that this opposition was raised, for, instead of doing us the injury that was intended, it has been the means of drawing the attention of buyers to our article, thereby causing a considerable number of Consumers with whom we had not hitherto done business to consider the advisability of trying our quality, with the result that they have found it, as we have so emphatically stated on previous occasions, of **vast superiority over anything that has been shown on this or any other market.**

We can boast of a success in our **"W. J. B. SPECIALITY ESSENCE OF LEMON"** such as we did not dare to anticipate, our sales during the last season having far exceeded our calculations. But the point upon which we are specially elated is, consumers are more and more becoming fully acquainted with its superiority, and those who have hitherto purchased the lower qualities from us and others, after due examination, are one by one being convinced of its advantages and converted to its use. What then are its great qualifications? Simply that it is made carefully and well, from **SELECTED FRUIT ONLY AND ABSOLUTELY PURE.** Although somewhat higher in price than the qualities usually called "the best," its greater strength makes it cheaper in use, imparting, at the same time, a far superior flavour.

With regard to the ordinary commercial qualities, we claim also to be exceptionally placed; being on the spot we are enabled to take advantage of favourable markets.

Finally, we wish to mention a few words on the prospect of the crop, which, we regret, does not seem at all brilliant at present. Our friends will no doubt have seen, by our various market reports, the crop of lemons is now ascertained to be unusually limited, and the quality of the fruit being exceptionally good, a larger quantity than usual will be used for packing. Therefore, in the absence of "refuse lemons," from which the ordinary Essence is made, both Essences and Lemon Juice must be dearer as the season advances; anything like a repetition of last year's figures is out of the question.

We have received overland by Grande Vitesse a small copper, the first manufactured this season at our works, Villaggio Gazzi, Messina, and the exceptional quality of the fruit this year will enable us to offer a **PERFECT ARTICLE.**

One of our partners is in Messina as usual, superintending the manufacture.

**W. J. BUSH & CO.**

**ARTILLERY LANE, LONDON.**



# KINMOND'S

## Royal Leamington

### APNEUMATIC

# TABLE WATERS

Were first supplied to H.M. the Queen in 1856,  
and to H.R.H. the Prince of Wales in 1862.

## KINMOND'S

# GINGER ALE,

AND ALL THEIR OTHER WATERS,  
Are UNRIVALLED for PURITY and QUALITY.

*In Ordinary Bottles and Syphons.*

## MANUFACTORY- LEAMINGTON.

*Send for Trade List and Compare Prices.*

## PASCALL'S

# LIQUORICE

## PELLETS

Composed of the FINEST  
LIQUORICE, the value of  
which to Public Speakers  
and Singers is univers-  
ally acknowledged.

Pellets are the most  
convenient form  
of Liquorice ever  
introduced,  
and

COMMAND  
A READY  
SALE.

IN  
OVAL  
BOXES,  
Bright and attrac-  
tive in appearance.

**3/-**  
PER DOZEN  
In One dozen outer boxes.

FAOSIMILE OF BOX.



And in 1-lb. Bottles, **2/8** per lb.

Of all the Wholesale Houses, or of the Manufacturer,

**JAS. PASCALL,** Blackfriars, London, S E.

GO AERATED WATER MANUFACTURERS

# HAY'S

## SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

## GINGER. HOP. LEMON &c &c

W. HAY, MANUFACTURING CHEMIST

# HULL

IN ORDERING SPECIFY HAY'S MANUFACTURE

## HAYWARD TYLER & CO.

SOLE MAKERS OF THE  
**HAYES-MACDONELL**  
**STEAM BOTTLER.**

Syrups, Fills, and  
Corks  
60 to 70 dozen  
per hour.

SHOWROOMS—  
**WHITECROSS**  
**STREET,**  
**LONDON.**





## LIBRARY

## FASTIDIOUSNESS APPROACHED.

The principle of combining a rapidly diffusible stimulant with a readily assimilated tissue food is one which is so frequently advocated but rarely if ever realized.

To combine such a stimulant with a fluid meat without in the smallest degree changing the nature of either is a problem which investigators and manufacturers have long endeavoured to solve.

The proprietors of Caffyn's Liquor Carnis after lengthened experiments and research have succeeded in producing such a combination in Caffyn's Carnis Chocolate. The value of such a mixture is obvious, and there need be no hesitation in stating that the preparation in question fulfils all these requirements, at the same time being pleasant to the palate and the eye, qualities in themselves of no small importance.

It is the experience of all, that cooked meat taken with Tea or Coffee is a frequent cause of dyspepsia, and is so much nourishment wasted, the Proteids being diverted from the true Peptone destination to that of waste products—Leucin, Tyrosin, &c. Following a day's hard work there is a natural craving for a healthy stimulant with the meal and better stimulants than the infused beverages Tea, Coffee, and Cocoa could not be found; yet these when taken in combination with Joint or Chops give such unsatisfactory results that personal experience soon dictates such substitutes as Wine, Beer, &c.

But it is quite possible to unite the former harmless and useful restoratives with meat in such a manner that these disadvantages may be readily overcome.

This requirement is met by Caffyn's Carnis Chocolate, for here the meat is not cooked, but is presented in its natural state ready for absorption, plus the stimulant which the exhausted nerve-tissues require, thereby completing a food equal to the requirements of the animal mechanism and satisfactory to the palate. Moreover, it may be taken by those suffering from weakened digestive powers, since it is not attended by flatulence, gastro-intestinal troubles, or any other dyspeptic phenomena, characteristic sequelæ of an ordinary meat-meal taken with the infused beverages.

For those in health as well as for invalids it is equally valuable. The tired brain-worker will find in it an incalculable boon, since it supplies an immediate restorative without the depressing after-effects of alcohol, at the same time bringing a supply of tissue food easily assimilated and ready for immediate absorption.

In the treatment of Dipsomania it is of the highest worth, since it quickly relieves that awful craving and depression so characteristic of the disease. Dyspeptics may take it unhesitatingly.

It is admirably adapted to the treatment of Vomiting during Pregnancy and diseases of the Nervous System in which a stimulant may be necessary which is not attended by excitement. Its value to Athletes and Travellers is obvious.

We therefore claim to have produced a type of food stuff that is unique in every sense of the word, and supplies a universal desideratum. As far as our knowledge extends, it is the only preparation that contains within itself pure uncooked Meat Albuminoids and the stimulating Alkaloids of Cocoa combined in such a manner and in such proportions that no strain whatever is thrown upon the digestive apparatus, and is valuable alike to those in health and to the most confirmed dyspeptic.

Into an ordinary breakfast-cup place a dessert-spoonful of CAFFYN'S CARNIS CHOCOLATE, to which add gradually, stirring briskly, boiling milk or milk and water if preferred. STIR WELL BEFORE USING.

*Supplied in 7-oz. Bottles at 2s. 6d., or 24s. per dozen, less usual trade discounts.* [1]

## SPECIMENS GRATIS

FROM THE MANUFACTURERS AND PATENTEES,  
THE LIQUOR CARNIS COMPANY (LIM.),  
50 Holborn Viaduct, London, E.C.

Laboratories—SMITHFIELD WORKS, E.C.





# DENAAYER'S

PEPTONOIDS AND EXTRACT OF MEAT CO., LIMITED,  
118 BISHOPSGATE ST. WITHIN, LONDON, E.C.

Telegraphic Address .. .. "DENAAYER, LONDON"

Chemists who delight in providing their customers with **GENUINE** and **SCIENTIFIC** productions are requested to communicate with a view to taking advantage of liberal and exceptional arrangements we are open to make with leading chemists, for mutual advantage. **PAMPHLETS** and **SAMPLES** free on application.

## DENAAYER'S STERILIZED PEPTONE OF MEAT,

READY FOR USE, 2/- per Bottle.

Contains considerably more nutritive matter than Lean Beef, and in a form requiring no painful effort on the part of a disabled stomach, all the albuminoid material having been converted into physiologically assimilable peptone-albumose, ready for immediate absorption into the blood. It is the only peptone which an invalid can tolerate repeated doses of, and is, indeed, both pleasant in appearance and refreshing on the palate.

### PEPTONATE OF IRON (Denaeyer),

A true chemical union of the constituent elements for ready absorption, is manufactured as

**DENAAYER'S LIQUID PEPTONATE OF IRON**, 1/6 per bottle.

**PULVIS FERRI PEPTONATIS** (Denaeyer's), 4/ per oz.

**PEPSINA PORCI** (Denaeyer), 3/- per bottle, one-third of an ounce. A new and important improvement in the production of Pepsine enables us to provide a peculiarly active ferment.

## RAIMES' CACHOUS.

Size and Shape

**RED AND WHITE ROSES**, THE MOST POPULAR CACHOU IN THE TRADE  **FRAGRANT "BOUQUET" CACHOUS**   
**HELIOTROPE**  **VIOLET**  **ORANGE BLOSSOM**  **PRIMROSE** 

The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.

Price 2s. 6d. per lb., 3 per cent. discount

Samples on application

Parcels of 14 lbs. forwarded carriage paid, with a handsome Glass Show Jar gratis (fig. A, No. 5, Maw's list), on receipt of P.O.O. for 33s.

**RAIMES & CO., WHOLESALE DRUGGISTS, YORK & EDINBURGH**  
LONDON AGENTS—TIDMAN & SON, 21 WILSON STREET, E.C.

BY SPECIAL  
H.R.H. THE DUKE OF  
ROYAL



APPOINTMENT TO  
CONNAUGHT AND THE  
FAMILY.

## BOURNE WATERS.

THE PUREST IN ENGLAND.

**R. M. MILLS & CO., BOURNE, LINCOLNSHIRE,**

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS  
LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

Special attention is invited to our manufacture of

### LITHIA WATER.

Each Bottle contains an average dose of Carbonate of Lithia—the recognised Specific for Gout.

THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water is Pints and Quarts for Table Use.

Prices and Pamphlet on application.

Agents appointed.

MESSRS. HARDY & CO., Chemists, 23 FENCHURCH STREET.  
D. WHEATLEY, 16A NORTH AUDLEY STREET.

Natural arsenious and

**Guber Spring**  
ferrugineous  
Mineral-water.  
**EREBRENICA** in Bosnia.

Will be found of great value in the treatment of  
**Anaemia, Chlorosis, Intermitting fever,**  
**Malaria, Diseases of the Nerves, &c.**

**Easily to digest.**

**HENRY MATTONI, VIENNA.**

Write for pamphlets and particulars to

**W. BEST & SONS,**  
22, Henrietta street, Cavendish square,  
**LONDON, W.**  
To be had of all Chemists and Druggists.

# POSTAL ORDER 5/3

## FIVE SHILLINGS AND THREEPENCE.

WE OFFER to send  $1\frac{1}{2}$  dozen DE CARLE'S SOLID FRUIT JUICES, Carriage Paid, with Showcard, Handbills, &c., to Retail at  $4\frac{1}{2}$ d. (assorted flavours, Lemon, Orange, Raspberry, Cherry, Pineapple, &c.), for 5/3. It will not pay us, but we know for certain that it will lead to further business, for all who have once sold them repeat their orders.

It is just this: a packet at  $4\frac{1}{2}$ d., with 1 lb. Sugar and  $\frac{1}{2}$ -pint Boiling Water, will make  $1\frac{1}{4}$  pint of Superb Fruit Syrup, unsurpassed by any, for SEVENPENCE.

### FOOT-NOTES ON ORDERS RECEIVED.

From J. H. WEBBER, 15 St. James St., Weston-super-Mare.

"Please send me at once . . . De Carle's Fruit Juices. They give great satisfaction."

From A. DE ST. DALMAS, Leicester.

"We think you have been very successful; they are the nicest drinks of the kind we have met with."

From E. C. F. GREEN, Chemist, Frome.

"Please send me . . . Fruit Juices, with printed matter with name, as above, which I think may greatly increase the sale of an article already much appreciated."

From E. F. YOUNG & SON, Stamford.

"Your Fruit Drinks give great satisfaction, &c."

From C. R. ROCKLIFFE, 136 High Street, Chatham.

"Once persuaded to try them, customers without exception have them again."

From J. C. NICHOLS & Co., Sherston.

"Where introduced they give satisfaction; in fact, the best and cheapest drinks we have ever sold. Please quote lowest price, and best terms for quantity, &c."

**NOTE THIS.**—We will supply Printed Advertising Matter, Free Samples, &c., to any Chemist who will take the Agency, and make it worth his purpose to do so.

FULL PARTICULARS OF

# DE CARLE & SON,

Manufacturing Chemists, NORWICH.

DE CARLE'S SOLID FRUIT JUICES may be obtained of Barclay & Sons, Sanger & Sons, Edwards, Sutton & Co., Hovenden & Sons, Newbery, May, Roberts, and all London Houses; also of Fogglitt, Thirsk; Evans, Gadd & Co.,

Exeter, &c.



EIGHT PRIZE MEDALS AWARDED

# GOODALL'S HOUSEHOLD SPECIALITIES.

## YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 8d., 1s., and 2s. each

## GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 8d., 1s., 2s. and 5s. Tins.

## GOODALL'S EGG POWDER.

One 8d. Tin is equal to 25 eggs. In 1d. Packets; 8d., 1s. 2s. and 5s. Tins.

## GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2s., 8d., and 1s. each

## GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 8d. and 1s. each.

## GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 8d., 1s. and 2s. each.

## GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3d. and 8d.

## GOODALL'S BRUNSWICK BLACK,

For Painting Stoves, Grates, Iron, Tin, &amp;c. 8d. and 1s. Bottles

## GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

## GOODALL'S PLATE POWDER.

For Polishing and Cleaning all Metals. Boxes, 8d., 1s. and 2s.

## GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In  $\frac{1}{2}$ -pint, 1-pint, and Quart boxes, 3d., 8d., and 1s. each.

PROPRIETORS—GOODALL, BACKHOUSE &amp; CO., LEEDS

## PATENT MEDICINES

AND

## DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &amp;c., will be sent post free on application to

GOODALL, BACKHOUSE &amp; CO., LEEDS.

# CHEMISTS

CAN SAVE

# TIME

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**HOMOPATHIC**

Keene and Ashwell  
Leath and Boss  
Thompson and Capper  
Watson and Wates

**HOSPITALS**

London Homoeopathic

**HYPOPHOSPHITES**

Duncan, Flockhart and Co.  
Fellows  
Fletcher, Fletcher and Co.  
Syms and Co.  
Type and King

**INKALERS**

Sprison Co., The  
Toogood, W.

**INSECTICIDES**

Keating, T.  
Sanfora and Co.  
Steiner and Co.  
Thompson, Walters Hole and Co. (Lim.)

**INK [See MARKING INKS.]**

Bewley and Draper  
Duncan, Flockhart and Co.

**INSURANCE**

London and Lancashire Fire Insurance Co.

**KOLA**

Christy, T., & Co.  
Thompson, M. F.  
Van Hargan, J.

**KITCHEN**

Tyrer, P.

**LARD**

Ewen, J., and Sons

**LINSEED POULTICE**

Seabury and Johnson

**LINT**

Liverpool Lint Co.  
Newsome, C.  
Robinson and Sons  
Seabury and Johnson

**LOZENGES**

Allen and Hanbury  
Blyton, Astley and Co.  
Gibson, R., and Sons (Mantia)  
Hill and Son  
Kerfoot, T.  
Pascall, J.  
Ramsay and Co.  
Randall and Son  
Stern, G. and Co.  
Warwick Bros.

**LIME JUICE**

Evans, Sons and Co.  
Idris and Co.  
Riddle, A., and Co.

**MACHINE**

Bayer Freres.  
Burroughs, Wellcome and Co.  
Foster, F.  
Hilroyd, J., and Co. (Lim.)  
Melin, C.  
Olsosa, A.  
Shears and Son  
Werner and Pfleiderer

**MAGNESIA**

Bush, W., Son and Co.  
Dinnestor and Co.  
Greiff, R. W., and Co.  
Henry, T. and W. (Unsleined)  
Hill and Son, A. S.  
Kerfoot, T. (Unsleined)

**MALT EXTRACT, &c.**

Allen and Hanbury  
Baels, R., and Co.  
Burroughs, Wellcome and Co. (Kaplar's)  
Hearon, Squire and Francis  
Oppenheimer Bros. and Co.  
Reade Bros. and Co. (Biscuits)  
Wyleys and Co.

**MANICURE****PREPARATION**

Carmichael, M. W.  
Dr. Paul's

**MARKING INKS**

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Hickinson, J.  
Marx, M. and E.

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Day and Sons (Veterinary)

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Al Menthol Depot, A. W.  
Shirley, Proprietor  
Cooking and Co.  
Evans, Sons and Co.  
Hockin, Wilson and Co.  
Seabury and Johnson  
Thompson, Walters, Hole and Co. (Lim.)  
Tyrer, P.

**MERCURIALS**

Fuerst Brothers  
Howards and Son  
May and Baker (Limited)

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Boord and Son  
Burrough, J.  
Harvey, J. and W., and Co.  
Jones and Co.  
Phillips, G., and Co.  
Smith, S., and Co.

**METHYLENE**

Robbins, J., and Co.

**MICROSCOPES**

Darton, F., and Co.  
Perken, Son and Kayment

**MILK**

Nestle, H. (Condensed)

**MIXING****MACHINE**

Gardner, W.  
Werner and Pfleiderer

**MORPHIA**

Macfarlan, J. F., and Co.  
Smith, T. and H.

**OILS, PAINTS, &c.**

Hugh Highgate and Co.  
Fox, W., and Sons

**ointment bases**

Burroughs, Wellcome and Co.  
Chesbrough (Vaseline)  
Grindley and Co. (Petroleum Jelly)  
Richardson, W. H.  
Reade Bros. & Co.

**OPTICIAN**

Botwright and Grey  
Darton, F., and Co.  
Lancaster and Sons  
Perken, Son and Kayment  
Raphael and Co.

**OTTO OF ROSE**

Firth, H.  
Fuerst Bros.  
Moryoseph, A.  
Treatt, R. C.

**PAPAIN PINKLER**

Kuhn, B.

**PEPSINE, &c.**

Burroughs, Wellcome and Co.  
Chassaling and Co.  
Fletcher, Fletcher & Stevenson  
Greiff, R. W., and Co.  
Newbery F. & Sons (Inglavin)  
Parke, G. J. R.  
Stern, G. and Co.  
Warner and Co. (Inglavin)

**PEPPERMINT OIL**

Cooking and Co.

**PATENT MEDONS**

Armbrrecht, Nelson and Co.  
Atkinson and Barber (Infant Preserv)  
Barley and Sons (Limited)  
Beecham, T. (Pills)  
Crouch, F. B.  
Edwards and Son  
Evans, Lescher and Webb  
Fennings (Powders)  
Globe Chemical Co.  
Goodall, Backhouse and Co.  
Guy's Tonic  
Holloway (Pills and Oint.)  
Lalor (Phosphodyns, &c.)  
Lincoln (Clarke's Mix.)  
May, Roberts and Co.  
Newbery and Sons  
Radam's Microbe Killer Co. (Lim.)  
Richardson, W. H.  
Roberts and Co. (Foreign)  
Sequah (Limited)  
Sutton, W., and Co.  
Thompson, Walters, Hole and Co. (Lim.)  
Vosler, The Charles A. Co.  
Wilcox and Co.

**PATENT AGENTS**

Horn and Son  
Thompson, W. P., & Co.

**PERFUMERY****FANCY SCAPES**

Bayley and Co.  
Blondeau and Cie.  
Boehm, P.  
Brook, T.  
Burroughs, Wellcome and Co.  
Chesbrough Manufacturing Co.  
Chlawick Soap Co.  
Coward, G. F., and Co.  
Durrant, Geo. (Scented Soaps)  
Evans, Sons and Co.  
Farina, J. M.  
Firth, H.  
Giraud Fils  
Greenall, T. S., and Son  
Patrick and Co. (Lim.)  
Johnson and Co.  
Legrand, L.  
Mann, O. A., and Co.  
Mourard, J.  
Newbery and Sons (Herdorff)  
Ofinger, E.  
Pears' Soap  
Pears' Patent Candle Co.  
Rosaire Manufact. Co.  
Rouse and Co.  
Santal, J. (Lev. Water)  
Shirley, A. W.  
Thompson, Walters, Hole & Co.  
Tidman and Son (Lim.)  
Treatt, R. C.  
Treatt, H. P. (Limited)  
Warrick Brothers  
West, T. (Oskell's Mena)  
Woolley, Sons and Co. (Powder)  
Young, R. D.

**PEROX. OF HYDR**

Robbins and Co.

**PETROLEUM**

Grindley and Co. (Jelly)  
Hamilton and Co. (Lim.)  
Hartick and Co. (Lucilline)  
Snowdon, Sons and Co. (Jel)

**PEARM. PREPS.**

Allen and Hanbury  
Barron, Harveys and Co.  
Berger, F.  
Boehm, P.  
Boehringer, C. F., & Sohne  
Burgoyne, Burdidge and Co.  
Burroughs, Wellcome & Co.  
Chassaling and Co.  
Duncan, Flockhart and Co.  
Elton and Co.  
Fellows  
Ferris and Co.  
Firth, H.  
Fletcher, Fletcher and Co.  
Fournier, Son and Cie.  
Giles Schacht and Co.  
Greiff, R. W., and Co.  
Green, C., and Co.  
Hearon, Squire and Francis  
Heigers, P. W., & Co.  
Hewitt and Son  
Hill, A. S., and Son  
Hooper, B., and Co.  
Howards and Son  
Jeyes Sanitary Compounds Co.  
Jordan and Co.  
Keith & Co. (Gone. Tinctures)  
Kolomann, Gragger  
Lay, R. O.  
Lambert Pharmaceutical Co.  
Lancaster, W.  
May and Baker (Limited)  
Moryoseph, A.  
Potter and Clarke  
Rankin and Borland  
Ricoles and Co.  
Roerts and Co.  
Southall Bros. and Barclay  
Sutton, W., and Co.  
Syms and Co.  
Tyrer, T., and Co.  
White, Alfred, and Sons  
Willows, Francis and Butlin  
Woolley, Sons and Co.  
Wyleys and Co.

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Darton, F., and Co.  
Fallowfield, J.  
Greiff, R. W., and Co.  
Houghton, G., & Son (Chemical)  
Howards and Son (Chemical)  
Lancaster, J., and Son  
Marion and Co.  
Orme, J., and Co.  
Perken, Son and Kayment  
Tyrer, T., and Co.  
White, Alfred, and Sons

**PILL MACHINES**

Palan, N., and Co.  
Pindar, J. W.  
Toogood, W. (Coater)  
Werner and Pfleiderer

**PILLS (Coated, &c.)**

Allen and Hanbury  
Anderson Apothecaries Hall  
Beecham, Thomas  
Blair's Gout Pills  
Champigny, A., and Co.  
Eade's Gout Pills  
Evans, Sons and Co.  
Hearon, Squire, and Francis  
Hill, A. S., and Son  
Holloway's Hooper's  
Jackson, W. and H.  
Lloyd, T. Howard and Co.  
McKesson and Robbins  
Newbery and Sons  
Robinson's  
Wand, S.  
Warner, W. B. and Co. (Coater)



**PLASTERS**

Evans, Sons and Co.  
Johnson and Johnson  
Mather, W.  
Quilliam, J., and Co.  
St. Dalmas, A.  
Seabury and Johnson  
Thompson, M. F.  
Young, H.

**PODOPHYLLIN, &c.**

Keith, B., and Co.  
Smith, T. and H., and Co.

**POLISHING**

Beckett, S.  
Bradley & Bourdas (Albatur)  
Chancellor, C., and Co. (Stove)  
Easy and Co.  
Fordham, W. B., and Sons  
(Limited)  
Oakley, John, and Sons

**PORCELAIN-GOOD!**

Toogood, (H. O. Potts, regist.)

**PRINTING**

Bowers Bros.  
Corson, J. R. (Glass)  
Ford, Shapland and Co.  
Silverlock, H.  
Townsend, J.

**PUMILINE**

Stern, G. and G.

**QUININE SALTS**

Roehring, C. F., and Sohne  
Greiff, R. W., and Co.  
Howards and Sons  
Kuhn, B.  
Zimmermann and Co.

**RENNET**

Duncan, Flockhart and Co.  
Greiff, R. W., and Co.  
Oldfield, Pattinson and Co.

**SACCHARIN**

Allen and Hanbury  
Burroughs, Wellcome and Co.

**SALICIN**

Macfarlan and Co.  
Smith, T. and H., and Co.

**SALICYLIC ACID**

Burgoyne, Burdidge and Co.  
Fuerst Bros.  
Zimmerman, A. and M.

**SALT**

Stern, G. and G. (Pepsalin)  
Tidman and Son

**SALOL**

Kuhn, B.

**SAUCES, PICKLES**

Goodall, Backhouse and Co.  
Mason, G., and Co. (Liqu.)  
Tyrer, P.

**SCHOOLS, &c.**

City School of Chemistry and  
Pharmacy (Llm.)  
Liverpool School of Pharmacy  
London Homoeopathic and  
Medical School  
Manchester College  
Northern School of Pharmacy  
South London School of  
Pharmacy (Llm.)  
The School of Pharmacy  
Westminster College

**SELTZGENES**

Bratby and Hinchliffe (Ld.)  
British Syphon Co.  
Evans, Sons and Co.  
Gerant, E., and Co.  
Lynch and Co.  
May, Roberts and Co.  
Theisler, E.

**SEEDS**

Arncliffe Bros.  
Potter and Clarke

**SHEEP DIP**

Fletcher Bros. and Co.  
Jeyes Sanitary Compounds Co.  
Quibell Bros.  
Wilkins

**SHOP FITTERS**

Bowling and Govier  
Bygrave, J. and W.  
Evans, Sons and Co.  
Howlett, S.  
Natal, E.  
Natal and Co.  
Potts, H., and Co.  
Treble, G., and Co.  
Yates, W. S.

**SOAP**

Ayrton and Saunders  
Barelay and Sons (Llm.)  
Bayley and Co.  
Blondeau and Co. (Vinolia)  
Bronnley, H., and Co.  
Chirwick Soap Co.  
Cook, E., and Co.  
Ewen, J., and Sons  
Fordham, W. B., & Sons (Ld.)  
Jeyes Sanitary Compounds Co.  
Lucas and Co.  
Pears' Soap  
Stern, G. and G.

**SPONGE**

Cresswell Bros.  
Evans, Sons and Co.  
Peterson, M., and Co.

**SPECTACLES**

Batwright and Grey  
Darton, F., and Co.  
Perken, Son and Rayment  
Raphael and Co.

**SPIRIT**

Boord and Son  
Burroughs, J. (Pure & Methyl.)  
Harvey, J. and W., and Co.  
Jones and Co. (Methyl.)  
Macnair, A., and Co.  
Phillips and Co.  
Smith, Stephen and Co.

**STAMPS (RUBBER)**

Berkley, J.  
Hickinson, J.  
Pollard, A. W.

**STARCH**

Beckett, S.  
Crichtley (Glass)

**STOPPERS**

Austin and Co. (Sprinklers)  
Barnett and Foster  
Mellin, G.  
Sanders, H. G., and Son  
Stipondium Stopper Co.

**STOVES**

Clark, S., and Co. (Llm.)

**SUGAR**

Fletcher, Fletcher and  
Stevenson  
Gibson, R., and Sons

**SURGICAL**

Ayrton and Saunders  
Bartley, W. H., and Son  
Barclay and Sons (Limited)  
Cocking, J. T.  
Eschmann Bros. and Walsh  
Haywood, J. H.  
Liverpool Patent Lint Co.  
Maw, Son, & Thompson, S.  
Robinson and Sons  
Sanitary Wood Wool Co. (Llm.)  
Schutze, F. and Co.  
Thompson, Walters, Hole and  
Co. (Limited)  
Tidman and Son  
Wood, F.  
Wood, Vincent

**SULFONAL**

Burroughs, Wellcome and Co.  
Greiff, R. W., and Co.  
May and Baker (Limited)

**SYPHONS**

Barnett and Foster  
Bratby and Hinchliffe (Ld.)  
British Syphon Co.  
Gerant, E., and Co.  
Glass Lined Syphon Co. (Ld.)  
Kilner Bros.  
Theisler, E.

**SYRINGES**

Bock, O.  
De Luca, G. V.  
Schoenfeld, J. & J. Frères

**SYRUPS**

Fletcher, Fletcher (Liquors)  
Idris and Co.

**TABLETS**

Corson, J. R. (advertising)  
Gem Glass Co. (Ld.) (advertising)

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Bonson's Digestive  
French and Langdale  
Old Tower St. Tea Co.  
Walker and Dalrymple

**THERMOMETERS**

Bailey, W. H., and Son  
Bock, O.  
Darton, F., and Co.  
Evans, Sons and Co.  
Perken Son and Rayment

**TILL**

Stokes, G. R. and Co.

**TINS**

Noakes, B., and Co.

**TOBACCO, CIGARS,**

**CIGARETTES**

Peacock, M. and R.  
Singleton and Cole (Llm.)  
Taddy and Co.

**TOILET**

Balm of Bethesda  
Blackwell, G. G.  
Evans, Sons and Co.  
Fordham, W. B., and Sons  
(Llm.)  
Hoveaden and Sons (Euxesia)  
Lloyd, A. S. (Euxesia)  
Mumford, G. S. Quelch, H. C.  
Rowland, A., and Sons  
Truefitt, H. F. (Limited)  
Woolley, Sons and Co.

**TOOTH PASTE**

Jewsbury and Brown  
Nutton, O. and Co. (Block)  
Wilson, A. (Bunter's)  
Woods, M. (Areca)

**TRADE MARKS**

Horn & Son

**TRUSSES**

Bailey, W. H., and Son  
Colwell, H. M.  
Evans, Sons & Co.  
Haywood, J. H.  
Mather, W.  
Thompson, Walters, Hole and  
Co. (Llm.)  
Wood, F.  
Wood, V.

**URETHANE**

Howard and Sons

**VACCINATION**

Vaccine Association (Lymph)

**VALUERS AND**

**TRANSF. AGENTS.**

Berdie and Co.  
Brett, F. J.  
Crocker, G. B., & Co.  
Orridge and Co.

**VASELINE**

Chesebrough Manufacturing Co.

**VERMIN KILLERS**

Sanford and Fox  
Steiner and Co.

**VINOLIA**

(Superfatted,  
Blondeau and Co.

**VETERINARY**

Day and Sons  
Day, Son and Hewitt  
Elliman, Sons and Co.  
James, W. H. (Bilsters)  
Jeyes Sanitary Compound  
Lakin, W. H.  
Learner, A. J.  
Lloyd, T., Howard and  
Rookledge, J.  
Scratts (Dogs)  
Walker, Troke and Co.  
Wyleys and Co.

**WHOLESALE AND**

**EXPORT DRUGS**

Allen and Hanbury  
Barron, Harvey and Co.  
Burgoyne, Burdidge and Co.  
Bush, W., Son and Co.  
Bush, W., and Co.  
Clay, Dod and Co.  
Coward, G. F., & Co.  
Dukin Brothers  
Evans, Sons and Co.  
Evans, Leecher and Webb  
Ferris and Co.  
Fox, W., and Sons  
Goodall, Backhouse and Co.  
Harker, Stagg and Morgan  
Harrington, W. and Son (Ld.)  
Hearson, Squire and Francis  
Hewlett and Son  
Hill, A. S., and Son  
Hodgkinsons, Treacher and Co.  
Lothhouse and Saltmer  
Lloyd, T., Howard and Co.  
Macfarlan, J. F., and Co.  
Oldfield, Pattinson and Co.  
Potter and Clarke  
Symes and Co.  
Thompson and Capper  
Thompson, Walters, Hole  
Co. (Limited)  
Walker, Troke and Co.  
Willins, Francis and Butler  
Woolley Jas., Sons and Co.  
Wright, Layman and Umney  
Wyleys and Co.

**WINES, SPIRITS**

Armstrong, Nelson and Co.  
Coleman and Co. (Meat and  
Durrant, G. (Orange) (Malt  
Goodall, Backhouse and Co.  
Idris and Co.  
Kenway and Co.  
Millar, A., and Co.  
Robinson, B.

**IMPROVED AND ECONOMIC COOKERY.**

**USE**

**LIEBIG**

Perfect Purity absolutely  
Guaranteed.

**"COMPANY'S"**

**EXTRACT**

**OF BEEF.**

**SOLE MANUFACTORY: FRAY BENTOS, S. AMERICA.**

COOKERY BOOKS (indispensable to ladies) sent free on application to

**LIEBIG'S EXTRACT OF MEAT COMPANY LIMITED,**

**9 FENCHURCH AVENUE, E.C.**

Makes the finest, purest,  
and strongest Beef Tea, and  
is the finest meat flavouring  
for Soups, Sauces, Made  
Dishes, &c. Keeps for any  
length of time, and is  
cheaper than any other  
stock. Forty pounds of  
prime lean beef (value 30s.)  
are used to make one  
pound of Extract of Beef.





THE last of the orders for the Book "A SOUVENIR," for which our advertisement in the Special Winter Number of *The Chemist and Druggist* created such an enormous demand, have now been sent forward.

We have pleasure in informing the Trade that, having extended our facilities for printing Dealers' name and address on these Books, we can guarantee to fill all orders hereafter in 48 hours from the time they are received.

The Book "A SOUVENIR" is admitted by all to be the best Book of the year for free distribution. It consists of 48 pages, size  $8\frac{1}{4}$  by  $5\frac{1}{2}$  inches; illustrated, interesting, and useful.

**Our Illustrated Counter Wrappers** consist of 72 different designs—size 4-oz., 6-oz., and 8-oz.—printed on one side only, with wide margins. The paper is clear, white, and strong. In short, these are Counter Wrappers which Dealers will use and send for a second supply. Owing to the large assortment we cannot undertake to print Dealers' cards on same.

**Our Illuminated Show-cards**, Panel Transparencies, Picture-cards, &c., &c., are acknowledged by Dealers to be the correct thing—novel, useful, and attractive; none more so. They are produced in the highest style of art, and not only largely increase the Dealers' sales [of ST. JACOBS OIL, but are an attraction to even the best-fitted shops.

**We undertake to supply all Dealers** with an assortment of the above advertising matter, FREE OF CHARGE, with Name and Address printed on the Books *only*, who will use same to our mutual advantage. Carriage will be prepaid by us in GREAT BRITAIN. If, however, Dealers have contracts with London Carriers, or desire to have packages sent to a London House for enclosure, we should be glad of such information with order.

Foreign Dealers should name their London Agents, to whom we will deliver the above advertising matter ready packed for Shipment.

P.P. THE CHARLES A. VOGELER COMPANY,

WILLIAM E. GEDDES, General European Manager,

45 Farringdon Road, London.



# Soluble "Tabloids" OF Compressed Drugs.

LONDON.]

MAY 9TH.

[1891.

## "PURE, PORTABLE, PERMANENT, AND PALATABLE" DRUGS.

The real secret of our success has been in gaining the full confidence of the profession by absolute purity and reliability of every product we issue, and then in placing these pure products before them in the most active, pleasing, and acceptable forms. Our earnest efforts in perfecting our PURE, PORTABLE, PERMANENT, and PALATABLE products have brought us liberal reward, and we have no doubt just as rich a reward may be gained by others who will try by original work and real merit to win confidence instead of branding themselves as pirates by resorting to questionable practices.

The "Tabloids" of Compressed Drugs, in accurately divided doses, greatly lessen the risk of error by nurses and patients, and afford an unchangeable and acceptable form for administration.

Pure drugs are always cheapest in the end. Those who deceive by imitating labels and packages are also capable of substituting impure drugs.

## "TABLOIDS" OF SULPHONAL AND OTHER SPARINGLY SOLUBLE DRUGS.

"We have examined 'Tabloids' of Compressed Sulphonal, Phenacetin, &c., by Messrs. Burroughs, Wellcome & Co., Snow Hill Buildings, E.C., and find that when they are put into water they readily break and fall to powder, which can be easily suspended by shaking. Placed upon the tongue, they immediately begin to soften and DISINTEGRATE. This specially compressed form possesses, therefore, the great advantage of permitting the subsequent absorption of insoluble drugs in consequence of the fine state of division into which they are reduced in the stomach."—*British Medical Journal*.



## ANTIPYRIN "TABLOIDS."

Antipyrin has been before the profession some time, but its wonderful properties have not been appreciated until quite recently. Dr. LAUDER BRUNTON (Croonian Lectures) said:—"When large doses of the drug are to be administered they should be divided and given at proper intervals till the impression is made. We frequently notice that a very small dose of landannin, such as three or five minims, will relieve abdominal pain without producing the least drowsiness, or indeed without exerting any other apparent effect upon the organism, and a similar result may be obtained in severe headache from the administration of five or ten grains of Antipyrin."

Antipyrin "Tabloids" supplied to the Trade, in bottles of 25 and 100, at 16s. and 54s. per dozen.

## APOMORPHINE "TABLOIDS."

Dr. MURRELL (The *Lancet*, March 8, 1890) says:—"I often prescribe the fiftieth of a grain 'Tabloid' of Apomorphine as a cough-lozenge. In this dose it never excites vomiting and very rarely nausea. The great bar to its general acceptance is a deep-rooted impression that Apomorphine is an emetic and nothing else, but undoubtedly its chief use is as an expectorant." He highly recommends the employment of Apomorphine in chronic bronchitis, bronchial catarrh, and pulmonary diseases generally.

Apomorphine "Tabloids" (1.50 gr.) supplied to the Trade in vialgrette oval bottles, 50 in bottle, 8s. 6d. per dozen.

## VOICE "TABLOIDS."

Composed of COCAINE, Chlorate of Potash, and Borax.



Impart a clear and silvery tone to the voice. Easily retained in the mouth while singing or speaking. Now used by the leading singers and public speakers throughout the world.

DIRECTIONS.—A single "Tabloid" may be slowly dissolved in the mouth to remove huskiness or hoarseness.

Supplied to the Trade in beautifully graven white metal boxes, with blue silk labels, at 8s. and 16s. per dozen. Retail price, 1s. and 2s. per box.

## QUININE "TABLOIDS," 1, 2, 3, and 5 gr.

The "Tabloids" of Compressed Soluble Quinine are now prescribed by the leading physicians of Europe, in preference to any other form of the drug, in the treatment of fevers and all other cases in which Quinine is indicated. They dissolve and act on the system quicker than ordinary pills or powders, and are easier to swallow.

Quinine "Tabloids" are supplied in convenient packages for dispensing.

## HYPODERMIC "TABLOIDS"

(PREPARED BY BURROUGHS, WELLCOME & CO.)

The Hypodermic "Tabloids" are soluble, of uniform activity, and keep perfectly. In solution, whether prepared with an antiseptic or not, most of the active principles quickly undergo change. All the alkaloids and glucosides are perfectly preserved in the "Tabloids," and may be quickly dissolved as required.

The *Lancet* reports that—"they are readily soluble and not at all irritating." They present the advantages that the dose is always accurate, the active principle unchangeable, and that they are compact and perfectly soluble.

New formulae are being constantly added to the list.

Put up in tubes, each containing 20 "Tabloids," at 12s. per dozen tubes, with the exception of Nos. 1, 7, 20, 21, 31, 32, 33, 40, 41, 42, 43, 48, 53, 54, and 56, which contain 12 "Tabloids."

## B., W., & CO. HYPODERMIC "TABLOID" POCKET CASES.

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See paper by Professor LEECH on "The Comparative Effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

## Spiritus Ætheris Nitrosi.

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## Æther Nitrosus and Sol. Ætheris Nitrosi.

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ESTABLISHED 1859.

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The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

Tasmanian Pharmaceutical Society.

Otago Pharmaceutical Association.

South African Pharmaceutical Association.

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## PUBLISHER'S NOTICE.

WHOLESALE HOUSES are requested to bear in mind that the Summer Issue of THE CHEMIST AND DRUGGIST will be published on July 25. On that occasion, and not again this year, we shall be prepared to stitch circulars with the journal. This favourite and effective method of distributing a circular to the trade must be arranged in advance, and firms thinking of taking advantage of the opportunity can get full particulars by communicating with us.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning.

## SUMMARY.

Two chemists, both from Yorkshire, have appeared as respondents in the Divorce Court.]

THE NOTABLE EVENTS in the Mincing Lane markets are advances in the prices of quinine and shellac.

OUR OBITUARY COLUMN indicates the effects of influenza, two deaths being recorded from this cause.

A SHREWSBURY CHEMIST has been heavily fined for selling friar's balsam made with methylated spirit.

THE SECOND READING OF THE PHARMACY BILL in the House of Commons now stands for June 1. There is a formidable array of opposition to it.

THE NAMES OF THE SUCCESSFUL CANDIDATES at the last Preliminary Examination are given in this issue, also of those who passed the Minor and Major at Edinburgh last month.

A NEW WATER-SOFTENING PROCESS is described in our report of the meeting of the Society of Chemical Industry. It is noteworthy that the speakers at the meeting seemed to regard Maignen's patent as possessing no novelty.

THE SPIRITS COMMITTEE has issued its report, which we refer to in an editorial note. Mr. A. H. Allen has continued his investigations on the ageing of spirits, and the results were brought before the Society of Chemical Industry on Monday.

MESSRS. BEECHAM have at last met an antagonist who has contested to the end their claim for an injunction. There was a conflict of evidence, but the judge considered that the plaintiffs had made out their case, and an injunction was granted.

OUR AUSTRALASIAN ASSOCIATED JOURNAL reports the death of Dr. Schomburgk, the director of the Adelaide Botanic Gardens, gives details of a new Pharmacy Bill which is being promoted in South Australia, and publishes an explanation by Dr. Mueller of the method of employing the strychnine cure in snake-bite.

THE fiftieth annual report of the Pharmaceutical Council and the financial statement, are printed in this issue, having been considered by the Council *in camera* on Wednesday. The report is a somewhat tame affair. The financial statement shows that the ordinary expenditure of the Society exceeded the ordinary revenue by 1,179l.

THERE appears to be money value in the title "M.D." A druggist and herbalist bankrupt at his public examination at Bradford told the court that before 1875 he used the title, having obtained it from the Pennsylvania University for 11l. Finding that it was a bogus degree he had dropped the use of it, and his gross income fell from 20l. to 5l. per week.

THE PHARMACEUTICAL COUNCIL had little to do on Wednesday. The amended by-laws were read a third time and passed, there only remaining the assent of a general meeting of the members of the Society and of the Privy Council to bring them into force. Amongst the changes contemplated are an increase of the Minor examination fee from 3l. 3s. to 5l. 5s., and a proportionate decrease in the Major fee.





**TRAVELLING EXPENSES.**—Mr. Goodman, the Ludgate Hill dentist who was paid a heavy compensation some time ago for having to move from the middle to the top of the hill, has had to transfer his practice once more—this time to the opposite side of the street. For this he has recovered from the Commissioners of Sewers the sum of 1,750*l.* as compensation. In cross-examination by the Solicitor-General, the claimant stated that the profits of his business were 3,000*l.* a year, that he had 20,000 patients on his books, and that he had supplied over 100,000 sets of teeth during the time he had been in practice.

**DOCTOR AND CHEMIST.**—Mr. Robert William Humphreys, M.R.C.S., was prosecuted, at the North London Police Court on May 1, by the Registrar-General for giving a false certificate of the death of a child named Ruth Thornton. The defendant admitted the offence, but pleaded justification. The defendant, it was stated, had a dispensary in the Haggerston Road, to which poor people went for advice. He had as an assistant a neighbouring chemist, named White, who was not a qualified medical man. Mrs. Thornton, the mother of the child in question, knew no one in the case but "Dr." White. The latter, however, evidently seeing danger ahead with regard to the child, told the mother that she had better call in another medical man, and two hours after the child died. Dr. Humphreys called, and wrote a certificate that he attended the child on the day of its death, February 6. The defendant submitted that he was justified in giving the certificate. He was ill at the time, and Mr. White brought him the details of the case at the dispensary and the prescriptions he had given. He acquiesced in the treatment, and none other would have been of avail at the moment. Consequently, he (defendant) considered the child was under his care. He had a similar case some years ago, and explained it to the coroner, and he replied that he was quite right, and said that if he had to hold inquests on all such cases he would never have his work finished. Mr. Haden Corser fined the defendant 5*l.* and 1*l.* 15*s.* 6*d.* costs.

## Provincial Reports.

*Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.*

### BATH.

**A MORPHIA VICTIM'S FATE.**—An inquest has been held at Corsham on the body of Horace Temple Evans, who died suddenly at his residence, Linleys, Corsham. The deceased, it appeared, had considerable knowledge of medicine, and for many years had taken large quantities of morphia, which he obtained from a chemist in Bath. Mr. Knight, chemist and druggist, of Southgate Street, Bath, deposed that he had known the deceased for six years, and had supplied him with morphia in varying quantities during that period. Deceased had represented himself to be Mr. T. E. Evans, his brother, whose name is on the medical register. Witness had frequently administered the drug to the deceased in his shop, and had remonstrated with him on the large quantities he had taken. Deceased had replied that he well knew what he was about, and could not do without it. The coroner pointed out to the jury that if Mr. Knight supplied the morphia in accordance with the Pharmacy Act there was no limit to the quantity he might supply. The jury returned a verdict in accordance with the medical evidence.

### DUBLIN.

**CONTRACT DRUGS.**—At a meeting of the guardians of the South Dublin Union held on April 30, a report was received

from Sir Charles Cameron, public analyst, to the effect that he had examined the following drugs for the South City Dispensary: Tinctures of digitalis, henbane, senna, and iodine, hippo wine, and spirit of nitrous ether—all of which were of good quality and strength, except the tincture of senna, which he found was somewhat poor in spirit. It contained, however, the full amount of extract, and the deficiency in alcohol was trifling. Sir Charles, in addition, informed the board that a large and well-fitted city laboratory had been now established in the municipal buildings, Cork Hill, and that in future his analytical work would be performed there. Captain Boyd said the report was satisfactory, and commented on the statement which implied that drugs of an inferior quality were being supplied to the poor.

### MANCHESTER.

**THE INFLUENZA EPIDEMIC** shows no signs of abatement here, and reports from neighbouring towns indicate that it is quite as bad there. In Oldham, it is said, there are between four and five hundred persons affected by the malady.

**SOCIETY OF CHEMICAL INDUSTRY.**—The members of the Manchester section of this society brought the work of the session to an end by a very lively meeting, held last Friday night at the Chemical Club, Victoria Hotel. The treatment of sewage was the subject of discussion and, at first sight, it does not impress one as a very thrilling subject, but several members reached such a pitch of excitement that Mr. Ivan Levinstein, who presided, had repeatedly to call them to order. Everybody thought that the discussion would look well in print, but, unfortunately, it was announced that the Publication Committee did not propose to publish it. No doubt the decision was come to in view of the extent to which different speakers advocated the processes of sewage treatment adopted by different firms and companies.

**MANUFACTURERS OF CHEMICALS** are having a bad time in this district at present. Owing in some measure to the abortive attempt to grow trees in tubs in our principal square, a fresh outcry has been raised about the impurity of the atmosphere—and in all conscience there has been cause enough for outcry during the winter from which we are alleged to have emerged. Complaint is made that the chemical works are the chief sinners in the matter; but in reply to this it has been pointed out that in respect of the absence of sulphurous acid, the atmosphere of Miles Platting, where the chemical works are chiefly located, compares favourably with that of Ancoats, the slum district of the city. The Corporation are apparently inclined to put the question to the test, and proceedings are now pending against Messrs. Hardman & Co., manufacturing chemists, for "allowing effluvia to be emitted from their works in such quantity as to be a nuisance and injurious to health." It is stated that the fumes from the works produce headache, irritation of the throat and eyes, and vomiting. The case was before the City Police Court on Wednesday and Thursday, and was adjourned for a fortnight.

### NEWCASTLE-ON-TYNE.

**MR. THOMAS STAMP ALDER**, chemist and druggist, New Bridge Street, has been appointed head of the Northumberland Street Post Office.

**A FIRE** occurred on the passenger steamer *Tynesider* as she was proceeding down the Tyne on her voyage to London, and was found to arise from a case of "sulphide (? sulphite) of sodium," which was in the hold.

**THE HALF-HOLIDAY.**—The chemists in Byker and Heaton commence the weekly half-holiday for the season on Wednesday, closing at 1 o'clock, when it is hoped it will be carried on in a more satisfactory manner than last season.

**CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.**—The first excursion of the above association was held on May 6, at 6.15 A.M., the object being to see through Messrs. Sowerby & Co.'s Eslington Glassworks, Gateshead. There was a large attendance of members. Mr. Hind, of the above firm, made an excellent guide, describing the various processes in an interesting and instructive manner.



## SHEFFIELD.

**THE INFLUENZA EPIDEMIC.**—The influenza is still raging at Sheffield, and the mortality returns for the week ending May 2 show an alarming increase in the deaths from influenza and its associated complaints, pneumonia and bronchitis. The deaths certified as primarily due to influenza are no fewer than 112, as against 55 in the previous week. At the same time the deaths from pneumonia and bronchitis exhibit a considerable increase, there being 76 from pneumonia, against 49, and 97 from bronchitis, against 73, in the previous week. The deaths from all causes in Sheffield last week were no fewer than 458, against 375 the week before, this being equal to an annual death-rate of 70.3 per 1,000, against 57.8 reported a week ago. These figures are quite unprecedented in Sheffield, and far exceed those reached in any one week during the 1890 epidemic, when the highest number of deaths in any one week from influenza was 15, and the highest total death-rate 38.7. There is strong reason, however, for thinking that "la grippe" is now relaxing its hold, as the number of fresh cases is decidedly lower than it was a week ago. Notwithstanding this, however, a great many severe cases still remain under treatment.

## SCOTLAND.

## DUMBARTON.

**THE DUKE'S CURE.**—An unusual case came before Sheriff Gebbie in the Dumbarton Sheriff Court on Monday. Mr. J. S. Wynd, of Glasgow, claims 200*l.* from Mr. Drummond Robertson, of Glenowen, Clynder, Gareloch, for failing to supply a certain rheumatic specific. From the evidence of the pursuer it appears that he had been attracted by a paragraph in the newspapers reporting the curing of the Duke of Argyll of rheumatism by the defender, whereupon he sought and got an introduction to the defender, and desired to be treated for rheumatics, from which he was suffering. In the course of the conversation the defender stated that he would not undertake the cure of any man, although he was daily expecting to be summoned to attend the Princess Louise, and therefore advised the pursuer to begin the treatment without delay. The pursuer the following day journeyed to Clynder, where he saw a hatch of testimonials, among them the one from the duke. Defender said his terms were 25 guineas, but ultimately he agreed to give the pursuer a course of treatment for one month for 10 guineas—the course to begin the following day. The agreement bore no mention of any place, but that the patient was to get the specific to drink three times daily *here*. After undergoing the treatment for three days, the pursuer, who was residing in Clynder House, was unable to get out of bed on the fourth day, and sent to defender asking him to send the specific. This the defender refused, but in a letter offered to supply it at a house belonging to the defender, about one hundred yards from his (defender's) house. After applying some liniments, which the pursuer said he received from his own doctor before leaving Glasgow, which reduced the swelling, the pursuer returned home and consulted a couple of medical gentlemen, who recommended him to go to Bath to undergo a course of treatment there. This the pursuer did, and claims the cost of his fare, his keep, and treatment when there, wages, &c., for the defender refusing the specific. The defender admitted the agreement, but averred that there was no condition to supply the specific anywhere else than in his own house, and where the pursuer was so supplied. In cross-examination, he admitted supplying other patients including the Duke of Argyll with the specific in their own houses, but maintained that his doing so was optional on his part, and to suit his own convenience. It also transpired that the defender had not charged the duke any fee, but had charged the wife of a labourer 15*l.* On the other hand, it was stated that defender had given his specific to various individuals without receiving a fee, or merely a nominal sum. A large number of witnesses were examined. Among these who gave evidence for the pursuer were Professor Campbell Black, of Anderson's College, and Dr. Adam, Glasgow, who were examined regarding the action of certain medicine on the system to show that they had a depressing influence on the patient at first, but if persevered in would tend towards a cure—all with a view to shew that if the specific had been continued the pursuer

might have been cured. It did not, however, transpire that the witnesses were acquainted with the composition of the specific. The sheriff fixed the 22nd inst. for hearing the agents debate the point.

## GLASGOW.

**MR. ALEXANDER BRUCE**, who has been manager in Mr. McMillan's establishment for the past six or seven years, has taken the agency for Scotland for Messrs. Oppenheimer Bros., of London. On leaving his situation he was presented by his fellow-assistants with a handsome dressing-case, as a token of the esteem in which he was held by them.

## General News.

**SHE DRANK THE LINIMENT.**—An elderly female, residing at Hartlepool, named Sarah Ward, who had been an outpatient of the Hartlepool Hospital for some time, died on April 29 by drinking from a bottle of liniment which she was to have used, in mistake for a similar bottle containing brandy.

**FIRE AT A CHEMIST'S SHOP.**—A fire occurred in the shop of Mr. Webster, chemist and druggist, Ilkeston, on Sunday. It was got under before it had extended far. The fire appeared to have started under the counter, the counter and shop-fittings being partly destroyed, and great damage being done to the stock both by fire and water.

**THE PHARMACY ACTS AMENDMENT BILL.**—This measure was down for second reading on Monday, May 4, but as the order was reached after midnight objection was taken to its progress, and it was postponed till June 1. Half-a-dozen members—Mr. John Kelly, Sir John Colomb, Mr. Radcliffe Cooke, Mr. H. J. Wilson, Mr. Hezler, and Sir James Bain—had given notice of their intention to move that the Bill be read a second time six months hence.

**DEATHS FROM CHLORODYNE.**—An inquest was held on Monday at Halifax at which it was shown that Mrs. Steele, wife of a doctor in the town, died from an overdose of chlorodyne, administered by herself through misadventure. On Tuesday an inquest was held at South Shields respecting the death of Mr. Malcolm C. Cewan, engineer, who had died on the previous day. In this case the evidence showed that the death was occasioned by an overdose of chlorodyne.

**SUICIDE OF A CHEMIST.**—At the inquest, held on Wednesday, it was ascertained that the death of Mr. John Graham, chemist and druggist, Horse Market, Darlington, was due to a dose of cyanide of potassium, probably mixed with tincture of acenite, self-administered. He appears to have taken the poison in the shop before going to bed. His wife said he had been suffering from mental anxiety, but, though despondent and at times showing the irritation attending despondency, he was kind and good to everybody. For two years his mind had been deranged, very much so at times, consequent on a great shock he received. He had had trouble about money matters through the Goodhurn trust, and that affected his mind to some extent. The jury found that deceased committed suicide whilst temporarily insane. Deceased was 71 years of age.

**CHEMISTS IN THE DIVORCE COURT.**—On April 29, in the Divorce Court, before Mr. Justice Jeune, the case of *Goneher v. Goucher* was heard. This was a wife's petition for divorce by reason of the respondent's cruelty and adultery. The suit was undefended. The parties were married in February, 1871. The respondent was a chemist, and they had resided at Sheffield and other places. Charges of cruelty and adultery were alleged on behalf of the petitioner. His lordship granted a decree *nisi* for the dissolution of the marriage, with costs.—In the same court, on April 30, Mr. Justice Jeune had before him the case of *Brown v. Brown*. The petition was that of the wife for a divorce by reason of the cruelty and adultery of her husband, a chemist and druggist, and a churchwarden, living at York. There was no defence. His lordship granted a decree *nisi*, with costs.



**THE SOCIETY OF CHEMICAL INDUSTRY: YORKSHIRE SECTION.**—A meeting of Yorkshire members of the Society of Chemical Industry was held at the Philosophical Hall, Leeds, on April 30, Mr. Richard Reynolds in the chair, at which Professor Smithells moved that, subject to the approval of the council, a Yorkshire section of the Society of Chemical Industry be established. The motion was seconded by Dr. F. H. Bowman, of Halifax, and was carried unanimously. The meeting then adopted rules for the management of the section. Sir James Kitson, Bart., was elected chairman of the section; Dr. F. H. Bowman, vice-chairman; Mr. C. H. Bothamley, hon. secretary and treasurer. The following were elected a committee for the section: Mr. A. H. Allen (Sheffield), Mr. W. Brelitt (Castleford), Mr. T. Fairley (Leeds), Dr. Hess (Leeds), Mr. Robert Holliday (Huddersfield), Professor Hummel, Dr. J. Lewkowitsch (Leeds), Mr. C. Rawson (Bradford), Mr. J. Sharp (Low Moor), Professor Smithells, Mr. G. Ward (Leeds), and Mr. Thorp Whitaker (Bradford).

**THE GERMAN EXHIBITION.**—This exhibition will be opened on May 9 by the Lord Mayor, assisted by Prince Blücher von Wahlstatt, the President of the Honorary Council in Germany and grandson of the hero of Waterloo. The exhibition will illustrate exclusively the arts, inventions, manufactures, products, and resources of Germany, and will constitute a unique object-lesson in the modern life of that country. The exhibits have been selected exclusively by a German committee, and represent the most important branches of German industry. The Queen has given permission for Professor Anton von Werner's painting of the German Imperial Family, presented to Her Majesty by the Germans in England, to be exhibited in this collection, and the German Emperor has likewise given permission for Professor Scherres's celebrated picture of the "Inundation in East Prussia" to be lent by the Berlin National Gallery. Arrangements are being made for lectures, illustrated by lime-light views, to be delivered by the most eminent German and English men of letters on subjects connected with German arts and sciences. Four of the most popular military bands of Germany have received permission to play in the exhibition, and arrangements have also been made for the celebrated "Hungarian Boys' Band," and the Bavarian Tyrolese Singers to perform during the season. The attractiveness of the grounds will be enhanced by scenic representations of Berlin, Potsdam, Nuremberg, Heidelberg, Munich, and the Rhine, while the Schleswig-Holstein farmhouse in the western garden will illustrate rural life in the home of our Anglo-Saxon forefathers; here will also be found craftsmen in their picturesque national costume, manufacturing the wood-carvings and silver filigree for which they are famous. In the arena it is intended to give a magnificent spectacular display entitled, "Germania," being a life-picture of episodes from the military and civil history of the German empire.

**NARCOTIC POISONING.**—An inquest was held on May 4 at Chesterfield touching the death of Josiah Frith, aged 37 years, who died suddenly on Saturday morning last at his home in Cobden Road. Alice Frith, the widow, stated that her husband had been in the employ of Messrs. A. Greaves and Son, chemists, Chesterfield. During the last year he had suffered a good deal from sciatica, but he was apparently all right on the day before his death. He came home on Friday of last week again, about six o'clock in the evening, and complained of feeling unwell, and said he would go straight away to bed, which he did. She went up to his room about twenty minutes to seven and found that he was asleep. When she went again about half-past nine she saw that the deceased's face was quite livid and that he was breathing heavily. She sent for Dr. Charles Booth, and his assistant, Mr. Coles, came. Mr. Coles said her husband was unconscious. Dr. Sutcliffe came about eleven o'clock, and the two doctors, with a couple of neighbours, remained with the deceased until his death at six o'clock in the morning. He never regained consciousness. Her husband was in the habit of taking Easton's syrup for his sciatica, but she thought he was not in the habit of taking opium. Dr. Sutcliffe said he was called in about eleven, and found Mr. Coles with the deceased. The deceased was quite unconscious, and his face was livid. There was a mucous rattling in his breathing, and for a considerable time he was on the

point of death—he was only kept alive until six o'clock by artificial respiration, and showed all the symptoms of poisoning. He had made a post-mortem examination, and found that death was due to narcotic poisoning. The witness said he could not form any idea as to the time when the poison was taken. Mr. J. D. Bales, stated that the deceased's brother had informed him that he had been in the habit of taking chloroform for his ailment. A verdict was given in accordance with the medical evidence.

## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

**FIRE AT A CHEMICAL WORKS.**—A large fire occurred last Saturday at Coignet & Co.'s extensive chemical works at Lyons.

**SCIENTIFIC MISSIONS.**—Dr. Fel has been charged with a special mission to study the sponge fisheries of the Mediterranean.

**FREE IMPORTATION OF OLIVE OIL.**—In consequence of a law passed in July, 1890, authorising a reduction in part or whole of the duty on certain Tunisian products imported into France, a decree has been issued permitting the free admission of 3,000,000 litres of olive oil of Tunis origin.

**ARREST OF A CHEMIST.**—On May 1 a M. Guinot, who styled himself professor of chemistry at the Philotechnic Association, was arrested on a charge of manufacturing dynamite and other explosives. A number of cartouches and tubes containing dynamite were found at his residence. Before the magistrate the following day M. Guinot was easily able to prove that the incriminating chemicals had merely served for the purposes of research, and he was immediately set at liberty.

**A NEW ANTISEPTIC.**—At the last meeting of the Academy of Medicine M. Polaillon read a communication from M. Berlioz, Grenoble, relative to a new antiseptic, which he has named "microcidine." This substance is presented in the form of a white powder, which may be easily obtained by adding caustic soda to a certain quantity of  $\beta$ -naphthol in a state of fusion. It is soluble in three parts of water, colourless, odourless, and non-poisonous. Its antiseptic quality is said to be inferior to bichloride of mercury, but ten times greater than that of carbolic acid.

## AUSTRALASIAN PHARMACEUTICAL NEWS.

We get the following items from the April number of THE CHEMIST AND DRUGGIST OF AUSTRALASIA:—

### THE SOUTH AUSTRALIAN PHARMACY BILL.

The South Australian Pharmaceutical Society, although unsuccessful in a previous effort to secure a Pharmacy Bill, have prepared a new Bill, which they think they will get through.

In the previous Bill an attempt was made to secure to the chemist the sale of poisons, and indeed of other drugs. This part of the Bill has been dropped. No claim is made to exclusive possession of anything but the title of chemist and druggist. South Australia is almost the only Australian colony in which any man who likes may call himself a chemist.

Taking the Queensland Pharmacy Act as a basis, the Council have adopted all its clauses, with slight modifications to suit the locality, but to describe the qualifications which shall entitle their holder to registration they have borrowed the language of the Victorian Act. In the sections which regulate the examination of assistants and apprentices, however, the restrictions of the Victorian Act have been relaxed. There will be no curriculum; the Preliminary may be passed during or even after apprenticeship. Unregistered persons, including companies, are forbidden to use the title chemist, or anything resembling it. These are the essential principles of the Bill. To carry them out the



machinery of Pharmacy Board Examinations and Register, familiar in most of the colonies, has been adopted bodily.

#### DR. SCHOMBURGK,

director of the Adelaide Botanical Gardens, died in March last, at the ripe age of 79. Fifty years ago he had made a name in the scientific world. He was the first to give a clear account of curare or woorali, the deadly poison used by the natives of British Guiana, and when curarine again came before the public, some ten years ago, he published an exhaustive pamphlet on the subject. He was universally respected in the world of science, and was member and correspondent of an extraordinary number of scientific societies.

#### THE STRYCHNINE CURE FOR SNAKE-BITE.

Dr. Mueller, of Yackandandah, has written to Mr. M. Rushton, chemist, of Hobart, giving explicit directions for the use of this remedy. Dr. Mueller says:—“(a) I am using a solution of nitrate of strychnine of 1 in 240 of water with a little glycerine. (b) 20 minims of this are injected in the usual manner of an hypodermic injection. (c) The frequency of repetition depends on the symptoms being more or less threatening, say from ten to twenty minutes. When all have disappeared, and the strychnine shows its first independent action by slight muscular spasms, the injections must, as a matter of course, be discontinued, unless after a while the snake-poison again reasserts itself. The quantity of strychnine required in some cases has amounted to a grain or more within a few hours. Both poisons are thoroughly antagonistic, and no hesitation need be felt in pushing on the use of the drug to quantities that would be fatal in the absence of snake-poison. Out of about 100 cases treated after my method, some of them at the point of death, there has been but one failure, and this arose from the injections being discontinued after 1½ grain had been injected. (d) Any part of the body will, of course, do for the injections, though I am in the habit of making them in the neighbourhood of the bitten part, or on it.”

#### WESTERN AUSTRALIA.

The Australian representative of Evans, Lescher & Webb, Mr. Malcolm M. Irving, has made a successful trip through Western Anstralia, whose recent admission to the circle of self-governing colonies has attracted much British notice to its prospects. Being asked, “Would you recommend a young chemist to go there and set up for himself?” “My advice,” he says, “would be—No. The place is somewhat overdone already. The only chance would be to go to some place on the railway line likely to grow with the lapse of time, stay there, drawing teeth, vaccinating, doing anything that turned up, and putting up with a considerable share of roughing it. There seems no greater chance in Western Australia than in any of the other colonies.”

THE New Zealand Drug Company has issued its twelfth annual report and balance-sheet, showing a net profit on the year's working of 7,201*l.* 5*s.* 8*d.* It is proposed to pay a dividend of 7½ per cent., amounting to 6,570*l.* 6*s.*

**CHLOROFORM IS NOT INFLAMMABLE.**—It is a common mistake among pharmacists to suppose that it is as dangerously inflammable as are the vapours of benzine, ether, and benzol, but, as a matter of fact, chloroform vapour tends to extinguish flame rather than feed it, says the *Bulletin of Pharmacy*.

**A DUBLIN DOCTOR'S DOGGEREL.**—Under this title “A. D.” has published a number of amusing rhymes, from which we take the following prescription:—

Should you suffer from lumbago,	Inject ether every twinge;
Live on nothing else but sazo,	If there's no relief from pain
Rub the lower part of spine	Try a Pulvermacher's chain.
With the strongest turpentine,	Then rub smartly with sand-paper:
Try the treatment used by quacks,	It will make you dance and caper.
Drop on melting sealing-wax.	Then, while resting from your toil,
If there still is no relief	Smear the part with “Jacob's Oil.”
Try a six-inch mustard leaf,	If all fail, try belladonna,
Take a needle and a syringe	It will cure you, 'pon my honour.

#### MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

**RANSOM—LUOAS.**—On April 29, at the Friends' Meeting House, Hitchin, Francis Ransom, only son of William Ransom, of Fairfield, Hitchin, to Priscilla Maud, youngest daughter of the late Joseph Lucas, of Sunderland.

#### DEATHS.

**FARRAND.**—Mr. Jacob S. Farrand, of Messrs. Farrand Williams & Clark, Detroit, U.S.A., died on April 3 last, at the age of 76 years. Mr. Farrand was born at Mentz, Cayuga County, New York, in 1815, and at the age of twelve years found his first occupation in a drug store at Ann Arbor. Later he became a mail carrier, making the journey between Ann Arbor and Detroit on horseback, and finally, in 1830, a clerk in the drug store of Rice & Bingham, in Detroit. Five years later he began his first business venture by forming a co-partnership with the younger member of that firm, n. 1855, with Mr. Alanson Sheley, he formed the firm of Farland & Sheley, now Farrand, Williams & Clark. The firm's buildings at the corner of Larned and Bates Streets were erected in 1872, and became the largest and finest occupied by any wholesale drug house in the country, the business amounting to more than \$1,000,000 a year.

**GRAHAM.**—On May 14, very suddenly, Mr. John Graham, chemist and druggist, Horse Market, Darlington. A very short time before his death he had been in his shop, and was about to retire to rest when he complained of feeling very unwell, and a messenger was despatched for a doctor. He was dead before the doctor arrived. A son of the deceased was abruptly informed of the sad occurrence, while in the Market Place, with the result that after hurrying home he was seized with a fit. Deceased, who was over 70 years of age, was a native of Sadberge, and for many years carried on business in Prebend Row. He took a keen interest in astronomy, and repeatedly wrote to the Press respecting notable astronomical events.

**KERRIDGE.**—On May 5, at Messrs. Corbyn, Stacey & Co.'s, 7 Poultry, Mr. Herbert Malster Kerridge, suddenly, from pneumonia following influenza. Aged 26.

**LAWFORD.**—On May 5, at London Road, Sheffield, Mr. C. W. Lawford, chemist and druggist, of bronchitis and pneumonia, resulting from an attack of influenza. Mr. Lawford, previous to starting for himself at Sheffield, was manager for upwards of twenty years for Mr. R. Fell, of Huddersfield.

**PLAUT.**—Mr. Isaac Plaut, of New York, died on April 19, aged 65 years. The deceased was a native of Eschwege, in Germany, and, after having been engaged in the manufacture of chemicals in his native country, he came to America and embarked in the wholesale drug business, the firm being Plaut & Barnard. He was also the founder of the *Deutsche Amerikanische Apotheker Zeitung*. In 1885 he abandoned business on his own account and became connected with Messrs. Lehn & Fink, of which house his son Albert is now a partner.

**UPSON.**—On April 29, at Gray's Inn Road, Sarah Upson, for upwards of forty years the faithful and trusted forewoman of Napoleon Price & Co., manufacturing perfumers, 27 Old Bond Street, W., and 8 Cumming Street, N. Aged 74.

**WHITTLE.**—On March 29, Mr. Elias Charles Cooper Whittle, chemist and druggist, High Barnet.

**WILLIAMS.**—On April 14, Mr. Thomas Williams, chemist and druggist, late of Chester. Aged 45.

**YEARSLEY.**—On April 24, Mr. Edwin Yearsley, chemist and druggist, Ross. Aged 72.

**THE FATAL HYD. CHLO.**—At Richmond, Ind., a customer handed into a pharmacy a prescription calling for chloral hydrate. The chloral bottle was labelled “Hyd. Chlo.” while the corrosive sublimate bottle is inscribed “Hyd. Chlo. Cor.” The assistant, in dispensing the prescription, used the latter bottle, and the consequences to the patient were very serious. So the *Pharmaceutical Era* says. “Very serious,” indeed!



## Pharmaceutical Society of Great Britain.

### COUNCIL MEETING.

THE Council met on Wednesday morning, commencing business at 11.25, when all the members were present, except Messrs. Hampson, Newsholme, and Storrar.

The minutes having been read, Mr. EVANS asked how long the lease of No. 15 Bloomshury Square was for, and the PRESIDENT having replied "Seven, fourteen, or twenty-one years," the minutes were approved of.

The PRESIDENT reported that he had received a telegram from Mr. Hampson explaining that his absence was due to sudden illness. Mr. Hampson had been present on the previous day, and the President thought it wise for him to keep indoors.

### ELECTIONS

Now took up the Council's time for some minutes, there being, in addition to chemist and druggist and pharmaceutical chemist members, exceptionally long lists of associates and associates in business. A number of persons were restored to membership and two chemists and druggists were restored to the register. Diplomas were granted to those who passed the Major examination last month.

### NEW HONORARY MEMBER.

The PRESIDENT stated that, in accordance with the by-laws of the Society, the name of Brigade-Surgeon J. E. T. Aitcheson, C.I.E., F.R.S., had been exhibited in the library for the past month as the nominee for a vacancy amongst the honorary members. That list, he said, was limited to fifty, and contained the names of many distinguished chemists and physicists. He knew no one who, in regard to botany and travel, had done more than Dr. Aitcheson, and he felt that the addition of his name would add considerable lustre to the roll. (Applause.)

The VICE-PRESIDENT seconded the motion, remarking that he did not know the Brigade-Surgeon personally, but he esteemed his work very highly.

The motion was unanimously carried.

The PRESIDENT stated that Dr. Aitcheson is about to extend his travels, during which he would do further work in the identification of the sources of drugs, and it was appropriate that they should honour him on the eve of his departure.

### FINANCE.

The SECRETARY read the report of the Finance Committee. This showed that during the month of April the Society's receipts were as follows:—

	£	s.	d.
Examination fees.. ..	1,146	12	0
Subscriptions .. ..	2,602	13	9
Interest .. ..	49	19	5
Other sources .. ..	30	5	0
	£3,829	10	2
Balance from March .. ..	1,215	2	11
	£5,004	13	1

The payments during April amounted to 2,382*l.* 18*s.* 2*d.* So that a balance of 2,661*l.* 14*s.* 11*d.* was now to be dealt with, and out of this payments amounting to 1,649*l.* were recommended by the committee. During April the subscriptions to the Benevolent Fund were 770*l.* 16*s.*, and the balance on this fund is now nearly 2,000*l.* It was recommended that 800*l.* should be placed on deposit. The payments on the General Fund Account comprised 448*l.* 15*s.* 10*d.* for alterations and repairs (in which 100*l.* to the architect is included), 500*l.* for current expenses, monthly salaries, and journal expenses.

The PRESIDENT referred to these items in moving the adoption of the report, explaining that the 800*l.* from the Benevolent Fund which was proposed to be invested would not be wanted for five or six months. It was not usual to invest such money, as, once invested, the by-laws prevented the money being used in payment of relief-grants.

Some members thought a little more could be placed on deposit, but the President laughingly remarked that this

was a matter which had been carefully considered the night before by six men, who came to the conclusion that 800*l.* was all that they could risk locking up. 400*l.* was required every quarter to pay annuitants, and there were casual grants also to be met.

Following this, there was some conversation about banking, and then, the report having been adopted, the "flag" went up. This was for the

### BENEVOLENT FUND REPORT.

Ten cases had been considered by the committee. Two cases were not entertained, one was deferred, two received grants of 5*l.* each, one 7*l.*, three 10*l.* each, and one 15*l.*

The Secretary reported the death of Mrs. Elizabeth Jones, an annuitant elected in 1867.

The VICE-PRESIDENT, in moving the adoption of the report, referred to Mr. How's application to get into the Aged Freemasons' Home. He said that in consequence of what had been published in the journals he had received a large number of votes for Mr. How, and several friends had offered to exchange votes for votes for other institutions, such as the Watford one. He would, therefore, be glad if any who had votes for exchange would communicate with him (Mr. Alexander Bottle, Dover).

Mr. RICHARDSON was not sure whether he could mention masonic matters there—(laughter)—but after the last meeting he had received several letters from pharmaceutical freemasons, who said that they had no idea that there was a branch of the craft in connection with pharmacy. He had no doubt that this association of the two crafts would be of material benefit to them when they came to relieve cases of distress in their ranks. (Hear, hear.)

### LIBRARY, &C., REPORT.

The "House" Committee had received the reports of the librarian, curator, and professors, which were of the usual character. It was recommended to fit up bookshelves at the west side of the old Council-room, and also to appoint Mr. Thomas S. Dymond assistant-lecturer in chemistry, in recognition of his services in the research laboratory and in assisting the professor of chemistry in his lectures. A few other small matters were dealt with.

The PRESIDENT moved the adoption of the report. He said that Mr. Dymond's election followed from the kind way in which the Council had spoken of him when the last report of the Research Committee was submitted. It was felt that it was only due to Mr. Dymond that he should get an official position. It would also be of assistance to him in seeking another appointment.

Mr. SCHACHT thought the appointment a very desirable one, and suggested that in the next edition of the calendar the officers in the different departments should be shown.

The PRESIDENT: Yes; that was rather an oversight. It will be seen to next year.

### SCHOOL OF PHARMACY EXAMINATIONS.

The examinations for the medals and certificates offered by the Council to students at the end of the first session have recently been conducted, and the teachers now submitted their reports, the gist of which is here given:—

*Practical Chemistry.*—Thirty-two students entered; the largest number on record. (1) Bronze medal, W. B. Hoyle; Certificates: (2) Henry Garnett, (3) James Dunning.

*Chemistry and Physics.*—Seventeen students entered. (1) Bronze medal, E. F. Harrison (90 per cent. marks); Certificates: H. Garnett and W. B. Hoyle, equal (80 per cent.).

*Botany.*—(1) Bronze medal, F. F. Ritchies; Certificates: (2) H. Garnett, (3) E. F. Harrison.

*Materia Medica.*—Bronze medal, W. B. Hoyle (107 out of 120 marks).

*Pharmacy.*—Bronze medal, W. B. Hoyle (99 per cent. marks).

The necessary resolutions authorising these awards were passed.

### NORTH BRITISH BRANCH.

The report of the Executive was submitted. After referring to the election in June last, the report proceeded to state that the Executive had met three times in the course of the year, and its General Purposes Committee four times. Reference was made to the nomination of examiners, to the



financial statement, and to the examinations. In regard to evening meetings, the report stated that three had been held, and were well attended. Arrangements were made for others, but fell through, and as no papers were forthcoming no meetings were held in December and March. There is increasing difficulty in getting papers. The condition of the library is satisfactory; 1,358 books were lent during the year, and 116 were lent outside Edinburgh and Leith. The attendance at the library and museum was 1,983 in the daytime and 1,181 in the evening, a substantial increase over the previous year; amongst the hundreds are members of the University staff, medical men, medical students, &c. The condition of the property was reported to be good, but an adjoining house was to be altered, and as this threatened the security of the Society's house, Mr. Blanc, architect, was asked to look after the matter, and under his advice the Society's rights were properly cared for.

The PRESIDENT said this was a satisfactory report. He explained what was meant by the last sentence, and said that Mr. Blanc was a very able architect and surveyor, who would see that in the rebuilding of the house adjoining the party wall was not altered to the detriment of the Society.

Mr. EVANS asked for the paragraph regarding the evening meetings to be read again. This having been done, he said that he hoped one day to move that they should appoint a professor to go about the country delivering lectures.

At this there was some amusement, the President saying it was another question, and Mr. Richardson, jokingly asking Mr. Evans if his professor was to be a sort of pharmaceutical "star."

#### MISCELLANEA.

Dr. Stevenson's report on the examinations was laid on the table.

The PRESIDENT announced that Dr. Julius Oswald Hesse had been nominated to receive the Hanbury medal.

The amended by-laws were read a third time and passed.

It was resolved that a special general meeting of the Society should be called for May 27, after the business of the annual meeting is over, for the purpose of abrogating some of the by-laws of the Society and of considering and, if thought proper, of confirming and approving such new by-laws as the Council of the Society may deem proper and necessary, and shall submit to the said meeting, for the purposes contemplated by the charter of incorporation, by the Pharmacy Act, 1852, and by the Pharmacy Act, 1868, or for any or either of such purposes; and further that the by-laws shall be submitted to the said meeting.

The Secretary reported the results of the examinations last month. In London they were as follows:—

	Examined	Passed	Failed
Major .. ..	23	14	9
Minor .. ..	287	124	163
Modified .. ..	2	1	1
	312	139	173

At Edinburgh the results were:—

	Examined	Passed	Failed
Major .. ..	5	4	1
Minor .. ..	126	65	61
	131	69	62

The Preliminary examination results are given on page 648.

The resolution of the Notts Chemists' Association in regard to the Pharmacy Bill was laid before the meeting, and also one from the Stockport Chemists' Association supporting Mr. Saul's ideas in regard to the Preliminary examination.

#### FINANCIAL STATEMENT FOR 1890.

##### RECEIPTS.

	£	s.	d.
Balance January 1, 1890:—In Treasurer's hands .. ..	1,493	19	10
In Secretary's hands .. ..	30	13	8
In hands of Chairman of Executive (Scotland) .. ..	100	15	9
Life Members' Fund:—Interest .. ..	58	19	8
Interest on Investments .. ..	299	3	4

##### RECEIPTS—cont.

Subscriptions:—1,457 Members, Pharmaceutical Chemists .. ..	1,529	17	0
582 " Chemists and Druggists .. ..	611	2	0
1,266 Associates in Business .. ..	1,329	6	0
869 Associates not in Business .. ..	456	4	6
885 Apprentices or Students .. ..	464	12	6
13 Entrance Fees .. ..	27	6	0
Fees paid upon Restoration to the Society .. ..	25	14	6
Examination Fees:—1,448 Preliminary Examination .. ..	2,571	15	0
9 Modified " .. ..	9	9	0
1,192 Minor " .. ..	3,250	7	0
108 Major " .. ..	464	3	0
Registration Fees:—20 Fees for Restoration to the Register .. ..	21	0	0
7 Registration Fees as Chemists and Druggists .. ..	36	15	0
Journal:—Advertisements .. ..	4,062	1	4
Sales .. ..	289	1	10
Register:—Sales to the Government .. ..	147	10	0
Sundry Sales .. ..	14	0	0
Calendar:—Sundry Sales .. ..	26	14	0
Penalties and Costs for Infringements of the Pharmacy Act .. ..	302	9	1
Rent of Stable in rear of 36 York Place, Edinburgh .. ..	18	16	7
Sale of £6,500 Stock .. ..	6,193	0	6
Total .. ..	£23,832	17	1

##### EXPENDITURE.

Annuities:—Professor Redwood .. ..	100	0	0
Mr. Elias Bremridge .. ..	400	0	0
Carriage of Books, and other Parcels .. ..	16	15	7
Certificates of Death .. ..	18	15	3
Conversations at the Society's House .. ..	273	5	9
Evening and other Meetings .. ..	59	9	0
Examiners, Boards of—			
Fees to Examiners—England and Wales .. ..	1,581	6	0
Scotland .. ..	589	1	0
Fees to Superintendents, Preliminary Examination—			
England and Wales .. ..	215	15	6
Scotland .. ..	29	18	6
Hire of Rooms for conducting Preliminary Examination—			
England and Wales .. ..	71	17	6
Scotland .. ..	6	15	9
Travelling Expenses—England and Wales .. ..	170	1	6
Scotland .. ..	32	7	2
Refreshments for Examiners—England and Wales .. ..	94	6	3
Scotland .. ..	28	2	11
Apparatus, Drugs, and Chemicals for Examinations and sundry charges in connection therewith—England and Wales .. ..	117	6	7
Scotland .. ..	22	3	0
Fees to the College of Preceptors .. ..	181	7	0
Fixtures and Fittings .. ..	48	8	11
Furniture .. ..	133	14	4
House Expenses:—Gas, Water, Coal, Cleaning Materials, &c. .. ..	304	0	8
House Servants' Wages .. ..	215	9	0
Journal:—Editor and Sub-Editor's Salaries .. ..	750	0	0
Paper .. ..	760	2	5
Printing .. ..	1,982	13	0
Publishers' Commission .. ..	497	11	9
Contributions and Engraving .. ..	322	18	11
Reporting .. ..	143	12	6
Attending Conference and other Meetings .. ..	23	14	0
Parliamentary Papers and Sundry Charges .. ..	62	15	0
School of Pharmacy:—Emeritus Professors .. ..	200	0	0
Endowment of the Chairs of Practical Chemistry, Chemistry and Botany .. ..	450	0	0
Teacher of Practical Pharmacy .. ..	50	0	0
Subscription to Royal Botanic Gardens .. ..	21	0	0
Lecturers' Assistants .. ..	90	6	0
Apparatus, Chemicals, and Specimens for Lecture Classes, Prize Medals, Certificates, &c. .. ..	46	7	1
Printing and Posting Prospectuses .. ..	31	13	1
Law Costs .. ..	593	4	0
Library:—Librarian's Salary .. ..	240	0	0
Purchase and Binding of Books .. ..	75	2	4
Attending Meeting of Library Association at Reading .. ..	10	10	0
Museum:—Curator's Salary .. ..	350	0	0
Assistant's Wages .. ..	52	0	0
Glass Bottles .. ..	71	0	11
Specimens and Sundries .. ..	36	10	13
Expenses in Scotland:—Assistant-Secretary—Salary .. ..	150	0	0
Taxes .. ..	33	19	6
Travelling Expenses—Members of Executive .. ..	21	14	3
Fuel, Light, Water, Cleaning, Service, and Miscellaneous Expenses .. ..	171	15	2



EXPENDITURE—cont.		£	s.	d.
Postage:—General .. .. .		247	14	1
Journal (Cost of transmission to Members, Associates, and Apprentices) .. .. .		680	7	7
Grant to the Nottingham and Notts Chemists' Association for educational purposes .. .. .		20	0	0
Register, Printing and Publication .. .. .		164	14	2
Repairs and Alterations (largely in connection with adapting the old premises to present requirements) .. .. .		715	18	4
Rent and Taxes .. .. .		601	12	1
Fire Insurance—seven years' premium—and Insurance of Plate Glass .. .. .		272	9	6
Stationery, Engraving, Printing, and Office Expenses .. .. .		293	3	9
Calendar—Printing and Publication .. .. .		117	4	4
Salaries:—Secretary and Registrar .. .. .		450	0	0
Clerks .. .. .		790	15	0
Researched Laboratory .. .. .		346	16	0
Cost of Materials supplied to the Jacob Bell Scholars .. .. .		10	0	0
Herbarium and Council Medals .. .. .		6	4	0
Expenses of Local and Divisional Secretaries in promoting opposition to Customs and Inland Revenue Bill .. .. .		9	1	8
Sundries .. .. .		4	1	1
New Premises:—Galen Place—Enlarging the Dispensing Examination Room .. .. .		233	0	0
15 and 16 Bloomsbury Square—				
Kirk & Randall, Builders .. .. .		5,185	0	0
Architects' Fees .. .. .		300	0	0
Strode & Co., Gas and Electric Light Fittings .. .. .		200	0	0
Campbell Smith & Co., Decorators .. .. .		120	3	6
Howlett—Fixtures and Fittings .. .. .		184	15	3
Clerk of Works, Wages, &c. .. .. .		81	2	9
Travelling Expenses—Council and Committees .. .. .		467	3	5
Refreshments for Council .. .. .		39	16	0
Balance, December 31, 1890:—In Treasurer's hands .. .. .		236	17	9
In Secretary's hands .. .. .		76	12	7
In hands of Chairman of Executive (Scotland) .. .. .		21	6	11
Total .. .. .		£23,832	17	1

## BENEVOLENT FUND STATEMENT.

The subscriptions received in the course of the year amounted to 1,527*l.* 18*s.* 6*d.*, and the interest on investments was 88*l.* 2*s.* There was a balance of 481*l.* 3*s.* 7*d.* in hand. The payments made consisted of 1,556*l.* 5*s.* to annuitants, 347*l.* in casual grants (forty altogether), 10*l.* to the Secretary's Casual Fund, and 5*l.* from the Robbins's Fund to an annuitant. The working expenses charged amounted to 42*l.* 19*s.* 5*d.*, so that a balance of 933*l.* 19*s.* 8*d.* was left at December 31, 1890. In the course of the year 101*l.* 12*s.* was received in donations and legacies.

The funds invested for benevolent purposes are as follows:—

	£	s.	d.
Consols, 2½ per cent. .. .. .	2,950	0	0
Ground rents .. .. .	20,688	0	4
Robbins's Fund, 4-per-cent. gas debentures .. .. .	125	0	0
Secretary's Casual Relief Fund, 2½-per-cent. Consols .. .. .	105	0	0
	23,868	0	4

The SOCIETY'S INVESTMENTS consist of the following:—

	£	s.	d.
New premises in London. Cost to Dec. 31, 1890 .. .. .	19,775	16	2
Edinburgh premises. Cost .. .. .	1,931	10	0
Ground rents .. .. .	5,551	5	6
Consols .. .. .	3,500	0	0
Medal, Prize, and Scholarship Funds .. .. .	3,266	8	0
	34,024	19	8

## ANNUAL REPORT.

The Council, in presenting the fiftieth annual report and financial statement for 1890, has to record that the income from subscriptions and examination-fees has exceeded that of the previous year. The interest from investments is less, consequent upon the sale of stock for the completion of the new premises, 15 and 16 Bloomsbury Square. The amount of stock sold for that purpose during the financial year was 6,500*l.*, producing a net sum of 6,193*l.* 0*s.* 6*d.* The

house, No. 15 Bloomsbury Square, has now been completed, and let at annual rental of 230*l.*, and this sum will in future years form part of the interest on investments. Apart from the special expenditure on the new buildings, there has been a considerable outlay in alterations to adapt the old premises to existing requirements, in furniture, and in the septennial payment of the premium on fire insurance.

During the year 1,157 candidates presented themselves for the Minor examination, being an increase of 144 as compared with 1889. The entries for the Major examination were less numerous than in the previous year, 105 having been examined. Eight candidates also presented themselves for the Modified examination under section 4 of the Pharmacy Act, 1868. For the Preliminary examination there were rather more candidates than last year, the numbers being 1,392 as against 1,351. Whilst in each of the examinations the percentage of rejections still remains very high, in the case of the Minor examination it reaches nearly 60 per cent.

The report of Dr. Stevenson, the Government visitor, on the examinations held in London during the past year, which has been already published, deserves the thoughtful consideration of every one responsible for the training of apprentices and pupils. While expressing his sense of the thorough and careful manner in which the examiners carry out the important duties entrusted to them, Dr. Stevenson states, in regard to the Minor examination:—

"In chemistry the lack of systematic training and manipulative experience is patent. Indeed, too often it is manifest that the candidates have had neither proper teaching in the theory of the science, nor laboratory instruction.

"So long as no course of instruction is obligatory, this state of things may be expected to continue. I trust, however, that at no distant date pharmacists will recognise that the interests of their business will not be in conflict with public opinion, that the accurate study of the sciences bearing on pharmacy is indispensable.

"The large number of failures in prescriptions and in dispensing is significant, these being the two branches of examination which are most practical and most important in the interests of the public. The ability to read and properly interpret prescriptions, and accuracy and care in the dispensing of medicines, are rightly deemed all-important. I have observed that a considerable number of failures are brought about by mistakes as to quantities of potent drugs and poisons. Such errors are inexcusable, and rightly lead to rejection."

His observations on the large number of failures in the Preliminary examination are also significant:—

"Notwithstanding the large proportion of rejections the examination is by no means a severe one; nor is the standard of the examiners high. Elementary arithmetic, a knowledge of the mother tongue such as may be acquired in a Board School, and quite rudimentary Latin, are indispensable attainments for those who aspire to qualify as chemists and druggists."

Finally, he concludes as follows:—

"If my criticisms seem severe, they are directed rather to the defects in the training of candidates than to the examinations themselves."

This report recognises the necessity which exists for that improved system of training of the young pharmacist which the Council has been for some years seeking powers to enforce.

More ample accommodation for the constantly increasing number of books in the Library in London has been provided during the year, the change of Council-room from the old to the new building having afforded the desired opportunity. The Library now consists of the three large rooms on the first floor, extending the entire length of the Great Russell Street side of the old building. This extension will not only give room for the continual accession of new periodicals and other works, but will offer an opportunity for quieter study than is possible in the ordinary reading-room, where the business portion of the Library routine is carried on. The number of attendances in this department during the year has been well kept up, though a small decrease in the circulation of books is shown. About 230 books and pamphlets have been added during the year.

The donations to the Museums and Herbarium of the Society during the past year, which have been both numerous and important, indicate in a satisfactory manner the continued interest that is taken in them both at home and abroad. Frequent applications have been made for the



loan of specimens to illustrate lectures and papers by members of the Society. The attendance in the Museum has been very satisfactory, and has on certain days of the week taxed the accommodation for study which the Museum is capable of supplying. The total number of persons using the Museum during the past year was 6237.

The papers read at the evening meetings in London and Edinburgh have been not less interesting or less valuable from a pharmaceutical point of view than in past years. A noteworthy feature is the co-operation of medical and scientific men with the Society in this phase of its work.

The forty-ninth session of the Society's School of Pharmacy was inaugurated by an interesting address by Sir E. H. Sieveking, Physician in Ordinary to the Queen. The address was delivered to a large and representative audience, which expressed its appreciation of Sir Edward's remarks.

The Council has to report the completion of the rebuilding of the two houses, Nos. 15 and 16 Bloomsbury Square. No. 16 has been set apart for official purposes, and comprises offices for the secretary and his staff, the Council-room, and committee-rooms. The present arrangement is greatly superior to the old in point of convenience, and at the same time permits a much needed extension of accommodation in the old building for the Library and the School. As previously mentioned, the house No. 15 has been let on lease at an annual rent of 230l.

The report of the Executive of the North British Branch is of a satisfactory nature, and records an increasing interest among pharmacists resident in Scotland for the work of the Society. The development of the Library is demonstrated by the necessity for additional shelf-space, and the numbers using both the Library and Museum may be taken as in some degree indicating the appreciation of the efforts of the Society to make these departments as efficient factors in pharmaceutical education as possible.

As was anticipated, the alteration of the time of nomination of local secretaries from May to October has been attended with good results. The nomination-papers received in October last were more numerous than in any former year, and in many cases the selection of a nominee was made the occasion of a local meeting of chemists. The Council is sensible of the help rendered to the Society by local and divisional secretaries during the year, and takes this opportunity of expressing its indebtedness to one and all of them for their valuable services.

During the year numerous cases of infringement have been reported to the Registrar, and proceedings have been taken in all cases in which compliance with the law could not otherwise be obtained.

The Pharmacy Acts Amendment Bill, the draft of which the Council approved in February, was read a first time in the House of Commons on March 20. The Bill is introduced by Sir Henry Roscoe, and bears the names of Dr. Farquharson, Sir Trevor Lawrence, Sir Gwyer Hunter, and Mr. H. S. King. The Council has received many resolutions of approval with promises of support from various Chemists' Associations and Conferences in London and the provinces.

The Council points with much pleasure to the part taken by the Society in assisting in the preparation of the Addendum to the Pharmacopœia, 1885. On the invitation of Sir Richard Quain, Bart., chairman of the Pharmacopœia Committee of the Medical Council, a committee was appointed to advise and assist the Pharmacopœia Committee of the Medical Council as to the manner of preparing and defining the medicines and compounds which the Medical Council had in 1890 named as additions to the British Pharmacopœia, 1885. The committee of the Society communicated the result of its labours to the chairman of the Pharmacopœia Committee of the Medical Council, who thereupon addressed to the President of this Society an expression of the high appreciation with which the communication was regarded, and also referred to a resolution to that effect passed by the Medical Council. The Council feels that the Society is much indebted to Professor Atfield for his services in promoting this union of medical and pharmaceutical authorities in Pharmacopœia revision.

A grant of 20l. was made during the year to the Nottingham Chemists' Association, in aid of the educational work of that association.

The changes in the constitution of the Council have not been numerous. Mr. J. Robbins, who had filled the office of

treasurer of the Society for ten years, did not offer himself for re-election in May last, and Mr. D. Storrar was the only newly-elected member of Council. At the June Council meeting Mr. R. Hampson was elected treasurer. Mr. N. H. Martin, of Newcastle, has since resigned on account of pressure of business, and Mr. W. Warren has been elected in his place.

Mr. S. Gale having retired from the London Board of Examiners after twenty-six years' service, the Council has elected Mr. W. M. Holmes to fill the vacancy thus caused.

In August last a new schedule of subjects for examination in the Major and Minor drafted by the two Boards of Examiners was approved by the Council, and ordered to come into force one year after approval. It has long been felt that the published syllabus of the examination in most of the subjects was too general and condensed to afford adequate information to candidates as to the amount of knowledge required. Moreover, the sciences of chemistry and physics as well as of botany have of late years been so much widened and extended, that some defined limit in the range of these subjects in the schedule seemed necessary for the guidance of the examiners as well as candidates. The Council believes that the new schedule will be a useful guide to teachers, and a real help to candidates.

The Council has had under consideration the desirability of modifying and altering the existing by-laws, and a copy of the proposed new by-laws has already been published in the *Journal*, and sent to each member and associate. They will be considered and submitted for the approval of the Society at a special general meeting to be held at the conclusion of the business of the annual meeting. Most of the alterations have already been considered by the Society. Omitting verbal alterations, which, though numerous, are not fundamental, the principal changes proposed are as follows:—

The reduction of the restoration-fee of members, associates, and apprentices to the nominal sum of 1s.

The abolition of the entrance-fee required on election as members from chemists and druggists in business prior to the passing of the Pharmacy Act, 1868.

The creation of a class of "corresponding members."

The reduction of the composition-fee for members and associates in business from 20 to 10 guineas.

The alteration of the examination-fees of the Minor from 3 to 5 guineas, and the reduction of the Major fee from 5 to 3 guineas.

The addition to the subjects of the Minor examination of "a knowledge of the law relating to the sale of poisons."

The suggestion made at the last annual meeting by Mr. Balkwill that it would be conducive to a better feeling in the Society itself, and would promote a clearer understanding among those outside of the objects aimed at by the Council in promoting further legislation, if some of the officers and Council were to visit a few of the principal cities, and hold meetings open to the entire trade, has been acted upon. The President, Vice-President, and Mr. Allen have visited Exeter and Plymouth. The President also has been present at meetings in Manchester, Liverpool, Birmingham, Cardiff, Hull, Leeds, Carlisle, and Brighton, as well as in Aberdeen, Dundee, Glasgow, Edinburgh, and Dnmfries. At Liverpool he was supported by his colleague, Mr. Abraham; at Birmingham, by Mr. Southall, and also by the treasurer, Mr. Hampson, and Mr. Cross; at Cardiff, by Mr. Gwilym Evans; at Carlisle by Mr. Martindale; at Brighton by Mr. Marshall Leigh; at Leeds by Mr. Newsholme; and in Dundee and Edinburgh by his Scottish colleague, Mr. Storrar. The result of these meetings has undoubtedly been to produce a better understanding of the powers and duties of the Society under existing Acts, and the importance of having a united body if further powers are to be obtained has been clearly recognised.

Meetings for the discussion of trade matters have also been organised in various parts of the metropolis by some of the divisional secretaries for London, and the President, with one or other of his colleagues, has attended several such meetings. As a result of these conferences local associations have in some districts been formed, which should do much to induce a spirit of fraternity and unity among those practising pharmacy in the metropolis.

The Council at its meeting in April affixed the seal of the Society to a deed founding the Manchester Pharmaceutical



Association Scholarship, the funds for which had been placed in the President's hands by a member of that association, who did not wish to have his name disclosed. The scholarship will be of the annual value of about 30*l.*, and the competition is limited to assistants and apprentices residing in Lancashire or in certain adjoining parts of Derbyshire. The scholar is to be at liberty to carry on his studies in the School of the Society, or in any provincial school approved by the Council.

The report of the Research Committee on the results of the three years' work carried out in the Research Laboratory, with suggestions for its future management and continuance, was presented to the Council in February, and considered in March. The recommendations of the Committee were approved by the Council and the directorship was made part of the duty of the Professor of Chemistry. The Council has decided to place the management of the Laboratory on a definite and permanent basis, in view of the work already done and of the effect this work has had, and future investigations will doubtless have, in extending the influence of the Society amongst those in official positions capable of assisting the Council in its efforts to extend its powers. Moreover, the educational advantages thus obtained by the advanced students admitted as workers into the Laboratory have been of the highest value in promoting the advancement of true practical pharmacy.

Mr. Henry George Greenish was in June appointed by the Council to undertake the demonstrations in materia medica, which Mr. Holmes felt unable to continue, owing to its interference with his important duties as Curator of the Museums. By his training in the School of the Society and at the University of Dorpat Mr. Greenish is specially fitted for the appointment.

The official celebration of the Jubilee of the Society, to which ladies are invited, has been fixed for May 26, the evening preceding the annual meeting, at which this report will be presented. It will be held in the Society's premises. After the official business there will be a reunion in the Examination Hall, and in other parts of the Society's premises some objects of interest will be exhibited.

The sixth Hanbury Medal has been awarded to Dr. Julius Oswald Hesse, of Feuerbach, near Stuttgart, for his distinguished services in the prosecution of researches in the chemistry and natural history of drugs. It is hoped that Dr. Hesse will be present at the Jubilee meeting to receive the medal in person.

The income of the Benevolent Fund from subscriptions<sup>s</sup> shows a slight increase over that received for the past two years, having reached the sum of 1,527*l.* 18*s.* 6*d.*, against 1,477*l.* in 1889, and 1,500*l.* in 1888. On the Donation Account nearly fifty guineas were received, which will be added to the invested capital of the fund. The expenditure on account of casual grants was 362*l.*, and the amount paid to annuitants reached the large total of 1,556*l.* There is still a very large number of registered chemists who do not support the fund, and the Council would ask each member of the Society again to urge the claims of the fund upon his non-subscribing colleagues.

Among the losses by death sustained by the Society during the past year must be specially mentioned that of Henry Bowman Brady, F.R.S., a past member of Council and of the Board of Examiners for England and Wales, and one of the founders and past-Presidents of the British Pharmaceutical Conference. Mr. Brady was not only an accomplished pharmacist, but in the special branch of biological science, which he cultivated with so much success, he was regarded by the scientific world as an authority.

In the death of Henry Groves, also, the Society loses a distinguished and active member, and the scientific world an earnest worker. His reputation as a botanist was unique, and he was held in the greatest social respect both in Italy and England.

The Council has also to record the death of Wm. Hodgkinson (for some time an auditor), W. Hibbert, J. R. Battle, and W. Ashton (founders), George Young Sharpe (who has left a legacy of fifty guineas to the Benevolent Fund), and the following local secretaries: E. W. Martin (Guildford), P. Havill (Tiverton), D. Wallworth (Maldon), J. Ranken (Forfar), J. M. Horsfield (Rotherham).

## EXAMINATIONS IN SCOTLAND.

The Board of Examiners for Scotland met in Edinburgh on April 16, 17, 21, 22, 23, 24, 28, 29 and 30.

### MAJOR EXAMINATION.

The following were examined and passed:—

Hoseason, James Henry, Edinburgh	Stewart, James Tennent, Edinburgh
Shepherd, [Alexander Moir, Aberdeen]	Tweedie, Thomas Shortridge, Annan

### MINOR EXAMINATION.

The following were the successful candidates:—

Bell, William Brittain, Edinburgh	McKenzie, James, Edinburgh
Bingham, Frank, Masborough	May, James, Edinburgh
Bolsover, John Thomas, Manchester	Milne, Alexander Morrison, Aberdeen
Bryce, James, Edinburgh	Murray, John, Edinburgh
Clarke, William Edward, Manchester	Procter, Benjamin Bake, Glasgow
Clarkson, John, Wigan	Reith, John Reid, Aberdeen
Cumming, William, Leith	Robin, Hugh Millow, Edinburgh
Dewhurst, William, Manchester	Rose, Alexander Skene, Leith
Don, Charles, Edinburgh	Ross, David, Edinburgh
Dugan, Hugh Mathieson, Aberdeen	Royal, Andrew, Aberdeen
Dyson, William Henry, Manchester	Scroggie, John Henderson, Edinburgh
Findlay, Alexander Ogilvie, Edinburgh	Scowby, Joseph Newsome, London
Fleet, John Thomas, Edinburgh	Skirrow, Frederick James, Manchester
Forsyth, Douglas Millar, Edinburgh	Smith, William Harry, Sheffield
Fox, Matthew Henry, Manchester	Small, George Smith, Edinburgh
Gall, Alexander, Edinburgh	Spence, George, Edinburgh
Gauld, James, New Galloway	Squire, George, Barnsley
Greaves, William Thomas, Nottingham	Stevenson, Andrew, Kilmarnock
Hamilton, Robert, Belfast	Suttie, Robert, Cambuslang
Henderson, Andrew, Edinburgh	Swindells, Richard, Hyde
Herrod, Matthew, Peterborough	Templeton, John Gow, Glasgow
Holden, James, Blackburn	Thompson, Herbert, Manchester
Hudson, Sutherland, Glasgow	Thompson, Robert Greig, Edinburgh
Innes, James, Edinburgh	Thomson, James, Edinburgh
Jackson, George, Edinburgh	Thomson, William, Liverpool
Jones, Charles Edward, Liverpool	Thomson, William, Aberdeen
Jones, William Lord, Manchester	Waddell, John, Glasgow
Kaye, Alexander, Edinburgh	Wanless, Frederick Adolphus, Manchester
Knight, Angus Arthur, Manchester	Watson, Alexander, Cambuslang
Lee, Richard Baxter, Liverpool	Williams, William Rees, Edinburgh
McConnachie, George, Edinburgh	Williamson, Joseph, Manchester
Macdonald, David Mitchell, Aberdeen	Williamson, Thomas, Liverpool
	Wilson, Alexander Watson, Edinburgh

### PRELIMINARY EXAMINATION.

The report of the College of Preceptors was received on Tuesday, May 5, 1891. It showed that at the examination held on April 14, 451 candidates presented themselves, of whom 248 failed, and the following 203 passed. The Registrar has been authorised to place their names upon the Register of Apprentices or Students:—

Adams, George Cuthbert, Glasgow	Binley John Henry, Hemphall
Adams, William Wright, Birmingham	Birt, Henry, Birmingham
Adamson, William, Boness	Black, William Reynolds, York
Aitken, Robert, Hawick	Blake, Joseph, Aberdeen
Aitken, William, Edinburgh	Blanchflower, George Percy, Great Yarmouth
Allen, William John, Cardiff	Bourdis, Isaiah, London
Anderson, Frank, Kirton-in-Lindsey	Boyle, Thomas, Broughtly Ferry
Angel, Edward Charles, London	Brewis, George, Gateshead
Atkinson, Rowland, Southport	Bridgen, John Edward, Bognor
Barker, Alfred Albert, Barnard Castle	Brigham, Edwin Beal, Pocklington
Barlow, Thomas Oldham, Bowdon	Broadhurst, Fred., Stockport
Barrett, Thomas Edward, Portsmouth	Brown, Charles, Northallerton
Barrow, James, Cambridge	Burgham, Harry Hunsley, London
Bartley, Frank Giles, London	Butler, Richard, Drighlington
Bateson, Alfred Campbell, Kendal	Carnes, William, Churwell
Batman, John Edwin, York	Charles, Gwilym Frederick, Treherbert
Beattie, Alexander Gordon, Aberdeen	Charney, Arthur Walker, Blackburn
	Coles, Albert William, Okehampton
	Collins, John Henry, Mansfield



Coop, Henry, Ashton-under-Lyne  
 Cooper, Herbert Edward, Kettering  
 Coppock, Bernard, Carrington  
 Corney, Alfred Ernest, Portsmouth  
 Cottingham, Thomas, Market Rasen  
 Cranch, William John Beck, Barnstaple  
 Crow, Sidney, Gorleston  
 Cullingford, Edwin Pretty, Henley-on-Thames  
 Currie, Archibald Leith  
 Darroll, Thomas Morris, Warminster  
 Dawson, Hubert Allen, Louth  
 Dickson, John Scott, Newcastle-on-Tyne  
 Digweed, George, Portsmouth  
 Dorran, James William, Oldham  
 Douglas, Andrew, Edinburgh  
 Draper, Frederick Louis, Blackburn  
 Dunford, Oswald Fredk., Llyuolys  
 Eakin, James, London  
 Egerton, William Leggett, Southsea  
 Evans, Joseph Edward, Ammanford  
 Fairweather, George, Plymouth  
 Felthouse, Arthur George, Rugeley  
 Fernley, Albert, Congleton  
 Forrester, Alexander Harrow, Dy-sart  
 Fotbergill, James, Lancaster  
 Frew, Alexander Wilson, Denny  
 Garland, Alfred Harry, Blackburn  
 George, Willie, Treorkey  
 Gilby, Richard, Northampton  
 Giles, Lewis John, Folkestone  
 Gill, Herbert Edward, Birmingham  
 Glover, Henry James, Coventry  
 Goodall, Bowyer Gascoyne, Nun-eaton  
 Goodman, Cornall, Halifax  
 Goodwin, Charles, Cropwell Butler  
 Gordon, Edward, Aberdeen  
 Grassie, William, Aberdeen  
 Gray, Herbert, Manchester  
 Gray, Matthew, Glasgow  
 Gray, William Robert, Newcastle-on-Tyne  
 Green, George, Bristol  
 Hadley, Ada Millicent, Birmingham  
 Hadley, Mary Winifred, "  
 Hale, Vincent, London  
 Hall, James, Birmingham  
 Hardy, Thomas, Maryport  
 Hardy, Thomas, Sutton-in-Ashfield  
 Hare, Charles, Thirsk  
 Harvey, Joseph Frederick, Bir-mingham  
 Herbert, Alfred Walter, Barton-on-Humber  
 Hill, Thomas, Birmingham  
 Hodgson, Alfred, Leicester  
 Holbrook, Fred. Tucker, Penzance  
 Hollingworth, Oliver Albert, Barns-ley  
 Holt, William, Scunthorpe  
 Hooper, Francis William, St. Austel  
 Hope, William John, Stockport  
 Hughes, Albert Hammer, Wrexham  
 Hughes, David Morgan, Abercarn  
 Irving, James, Glasgow  
 Jackson, Frederick Charles, South-port  
 Jean, Ernest Albert, Jersey  
 Jessop, Harry, Birmingham  
 Jones, Henry John, Pontypridd  
 Jones, Manrice, Oswestry  
 Jones, Thomas, Llanybyther  
 Lamb Thomas, Clay Cross  
 Langham, Ebenezer, Salisbury  
 Law, Harry Arthur, Birmingham  
 Lee, Arthur David, Pocklington  
 Lee, Harry Lancelot, Bridlington  
 Quay  
 Lester, Garnet Louis, Cork

Lounds, William Beaver, Grout-ham  
 Lovatt, William George, Leek  
 McCallum, Robert, Glasgow  
 McDonald, Robert, jun., Inverness  
 McEwan, Arthur, Montrose  
 Mckenzie, Andrew, Maryport  
 Mackie, Alexander, Fraserburgh  
 McIntyre, Daniel, Paisley  
 McMahon, Ernest Hammond, Lon-don  
 McKee, Robert, Cullen  
 Magnay, William, Wigton  
 Markham, Wallace, Horncastle  
 Marsh, Ernest, Crewkerne  
 Mawer, Frank, Nottingham  
 Mercer, Joseph Ignatius, Preston  
 Midgley, Archibald, Manchester  
 Milburn, Thomas Henry, Maryport  
 Milling, John, Birkenhead  
 Mluct, Noel Joseph Alphonse Mauritius  
 Moffitt, Thomas Henry, Acklington  
 Moore, Archibald Liverstone, Tam-worth  
 Morris, George, Ludlow  
 Morton, Henry Rosser, Margate  
 Neave, Arthur Reynolds, Bath  
 Ness, John Robert, Torquay  
 Newton, Clarence Denton, Douglas  
 Newton, Thomas Irvin, Sowerby Bridge  
 Nicholson, John Charles, Thirsk  
 Nicol, James Smart, Kirriemuir  
 Noble, Francis Murray, Aberdeen  
 Nye, Gerald Lancelot, Sleaford  
 Paddon, Samuel, Barnstaple  
 Parker, Herbert Thomas, Cambridge  
 Parry, Dan. Josiah, Blaitha  
 Paton, Robert Alexander, Prestwick  
 Pearce, Seymour Rowland, London  
 Pigott, William Edmund, Wudsley  
 Pinchbeck, Gerald, Middlesborough  
 Pitt, Charles Frederick, Bristol  
 Plumstead, Frederick Geo. Edward, Wymondham  
 Pollard, Albert, Maidstone  
 Pomret, Albert, Blackburn  
 Potts, George Henry, Cleckheaton  
 Prescott, Wilfred Egerton Peter, Birkdale  
 Priest, Alexander, Cradley  
 Ratsey, William Henry, Oxford  
 Roberts, Caswallon Pugh, Criccieth  
 Roberts, Henry James, Aylesbury  
 Robertson, Alex. Hamilton, Stirling  
 Roblason, Joseph, Stanley  
 Rogers, Stanley, Stoubridge  
 Rowland, Herbert Luker, Weybridge  
 Schofield, Herbert Wm., Bradford  
 Schofield, William Henry, Leeds  
 Simpson, Alphonse Leon, London  
 Simpson, Bertram, Castleton  
 Simpson, Wilfred Dilke, Castleton  
 Sinclair, James, Aberdeen  
 Sinclair, James D., Derby  
 Slack, Alfred John, London  
 Slater, Harry, Bury  
 Smith, James, Blackpool  
 Sparks, Percy, Ipswich  
 Stanwix, John, London  
 Stewart, Andrew Hare, Penicuik  
 Stones, Arthur John, Rotherham  
 Strong, Alfred Ernest, Newcastle-on Tyne  
 Taylor, Robert Stanley, Royston  
 Taylor, William Buchanan, Ar-broath  
 Thomas, Louis Edwin, Cileen  
 Thomas, William, Llandobie  
 Thomas, William Sydney, Taibach  
 Thomson, Charles, New Deer  
 Thomson, William John, Chester  
 Tinker, Harold, Linthwaite  
 Underwood, Albert Henry, Ipswich

Vallet, Cyril Edward Franklin, London  
 Velch, George Hutchison, Glas-gow  
 Velch, William Cuthbert, Bishop Aneklund  
 Walkerdine, William Alfred, Derby  
 Wallace, Hugh Gray, Lancaster  
 Walls, James Samuel, Hayle  
 Walton, John James, Middles-borough  
 Watt, Frederick John, Hingham  
 White, Nathaniel Stanley, Liver-pool

Whitehead, Arthur Ernest, Sheffield  
 Wickins, Thomas Isaac James, Southsea  
 Wilson, Edward Taylor, Backworth  
 Wilsen, Thomas, Stowmarket  
 Windridge, Alfred Henry, Braintree  
 Wood, Joseph William Wells, London  
 Wright, Robert Edwin, Redditch  
 Wrigley, Arthur, Kelgbley  
 Yellowlees, John Alexander, Peebles  
 Young, Harold Shaw, Nantwich

Certificates by approved examining boards were received from the undermentioned in lieu of the Society's examination:—

Devereux, Arthur, Beaconsfield | Oakley, Frank Arthur Bonnemonth  
 Howlett, Herbert Arthur, Belvedere | Treu, John, St. Leonard's-on-Sea

### DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

**Steedman, Thomas Colton & Bros.,** 2, 3, 4, 17 & 18 Robinson Row, Hull. Wholesale Druggists and Drysalers (partners, Thomas Colton Steedman, Randolph Villas, Beverley Road, Hull, and David Steedman 20 Derringham Street, Hull, trading as). Trustee: Robert Hodgson, 16 Parliament Street, Hull (C.A.). Dated April 27; filed May 3; unsecured liabilities, 4,192l. 6s. 3d.; estimated net assets, 1,421l. 6s. 6d.; creditors fully secured, 15,055l. 4s. 9d. The following are scheduled as creditors:—

	£	s.	d.
Allison, E. & H., Hull .. .. .	23	0	0
Barringer, J., & Sons, London .. .. .	25	7	3
Batger & Co., London .. .. .	12	10	6
Bridgwater Bath Brick Company, Bridgwater .. .. .	17	10	0
Bristow, T. F., & Co., London .. .. .	14	11	9
Brunner, Mond & Co., Northwich .. .. .	12	6	2
Burntisland Oil Company, Edinburgh .. .. .	42	9	7
Bush, W., Son & Co., London .. .. .	16	0	2
Cox, S. G., Leicester .. .. .	12	15	2
Creascens Robinson & Co., London .. .. .	34	8	9
Grisdale, J., & Son, Leeds .. .. .	23	11	11
Hull Banking Company, Hull .. .. .	922	15	6
Keen, Robinson, & Belleville, London .. .. .	11	12	0
Oakbank Oil Company, Glasgow .. .. .	77	19	11
Prescott & Bolton, Manchester .. .. .	33	4	3
Ripley, R., Liverpool .. .. .	13	12	0
Starck, A., London .. .. .	42	10	7
Watson, J., & Sons, Leeds .. .. .	53	11	9
Wotherspoon & Co., Glasgow .. .. .	97	0	1

*Separate Estate.—Re THOMAS C. STEEDMAN.* List of creditors:—

Bell, J. Michael, Hull .. .. .	115	10	0
Bowling, S., Hull .. .. .	13	10	2
Colton, Miss, Selby .. .. .	1,380	0	0
Enston, J. H., Hull .. .. .	48	11	7
Kingston-upon-Hull Conservative Permanent Benefit Building Society, Hull .. .. .	210	13	10
Middleton, Thomas, Hull .. .. .	251	19	3
Reynolds, W., Hull .. .. .	296	19	4
Slaw, D. Allison, Dewsbury .. .. .	11	11	4
Steedman, F. J., London .. .. .	49	10	0

**Wolstenholme, James, & Co.** (James Wolstenholme, trading as) 47 Granville Street and 11 Crawford Terrace, Ashton-under-Lyne, Wholesale Drysalers. Trustee: Edwin Whitehead, 111 Old Street, Ashton-under-Lyne, auctioneer, &c. Dated April 30, 1891. Filed May 6, 1891. Unsecured liabilities, 547l. 7s. 0d.; estimated net assets, 290l. The following are scheduled as creditors:—

Bales Bros. & Co., London .. .. .	15	7	1
Chmupion & Co., Bristol .. .. .	10	10	8
Kerfoot, T., Manchester .. .. .	13	6	6
Marland, F., Ashton .. .. .	19	10	8
Oldfield, Pattinson & Co., Manchester .. .. .	19	11	10
Waterhouse, J., & Co., Ashton .. .. .	12	18	6
Wilde, W. W. (executors of), Ashton .. .. .	258	0	0
Woolley, James, Son & Co., Manchester .. .. .	14	0	5



## Medical Gleanings.

### VAGINITIS.

IN a clinical lecture on this subject at the Philadelphia Hospital Dr. E. G. Montgomery insisted on absolute cleanliness, and injections with a fountain-syringe in preference to others. One of the most effective preparations for injection, he said, is a sublimate solution in the strength of 1, 2, 3, or 4 to 1,000, which may be followed by some astringent, such as sulphate of zinc—40 to 60 grains to the quart. Acetate of lead, gallic acid, tannic acid, or extract of hydrastis may be used.

### CONDURANGO.

ALTHOUGH this drug has gone completely out of use in this country, it is still employed on the Continent, and is, on the whole, a favourite. It is supposed to be a specific for cancer, especially of the stomach; but all accounts seem to show that cases which have been relieved are not cancerous, but are simply non-malignant ulcerations. In the form of a powder condurango is very efficient in the treatment of painful affections of the stomach, and particularly when they are due to ulceration or irritation of the mucous membrane of this organ. The dose of the powder is 30 to 60 grains.

### THE INTRODUCTION OF COCA.

THE late Sir Robert Christison is generally accredited with the introduction of coca-leaves into therapeutics—certainly from 1876 the popularity of the drug in this country is dated; but the *Journal de Médecine de Paris*, in an article on "Tonic Reconstituants," states that "coca, under the designation of erythroxyton coca, was first introduced into European therapeutics by Mariani in 1863." The article proceeds to speak in praise of Vin Mariani, which it regards as "the first and most powerful of reconstituent preparations."

### BROWN-SEQUARD'S FLUID.

LITTLE has been heard of Dr. Brown-Sequard and his injections lately, but the old man has not given them up. At the Society of Biology in Paris, recently, he made a communication on the subject, maintaining all he has said hitherto, and with fresh facts to support his statements. One of his cases was that of a man arrived at the last stage of cachexia, nailed to his bed, in such a state of prostration that he could scarcely move, who received under the skin the product of the trituration of one testicle of a sheep which had been dead several hours, and the injection was administered at a temperature of 89.3° F. (32° C.); the patient suffered from very slight symptoms of infection—in fact, he escaped with merely a local abscess; but the general results were most remarkable. On the day after the patient sat up, and convalescence commenced. Other injections carried out under better conditions completed the cure, and since that time the disease has not reappeared. In certain cases of locomotor ataxia the benefits have been remarkable; in others, the injections have failed completely: but in dyspepsia and certain cases of incontinence of urine the favourable results have been very evident.

### SUDDEN DEATH.

IN one of his Lumleian lectures on the structural diseases of the heart, Dr. W. H. Broadbent gave a remarkable instance of how little a thing may determine death. An eminent artist was suffering from mitral stenosis and regurgitation, and had an extreme degree of distension of the right side of the heart with tricuspid regurgitation, and suffered especially from sleeplessness and dyspnoea, so that his misery was insupportable, and life was despaired of. The application of leeches over the liver, which was enormously swollen, and the administration of calomel at once gave him sleep, and by a repetition of the leeches and regular employment of mercurial aperients, with the usual heart tonics, he so far recovered as to be able to leave his room, and his convalescence seemed to be assured. One morning, after a hearty breakfast in bed, the nurse was about to wash his face and hands as usual, but he impatiently bade her give him the basin and stand aside. He sat up in bed with the

basin between his knees, and, when the time came for washing his face, bent forwards over it. The pressure upwards of a full stomach, caused by this movement, brought the weak right ventricle to a standstill, and the patient fell back dead.

### NOTES ON SULPHONAL.

RECENTLY Dr. Stewart, of Philadelphia, has called attention to a way of administering sulphonal so that its effects may be produced soon after the drug is taken. He directs that just before retiring the dose of sulphonal should be placed in a tumbler, which is then filled two-thirds with boiling water. This dissolves the powder. The solution is then stirred until it is sufficiently cool for drinking, or cold water is added to reduce it to a suitable temperature. Such a temperature is reached without causing any precipitation of the drug. To ensure success the sulphonal must be taken wholly dissolved, and the hotter the solution is when taken the better. Sleep results in most cases in a very few minutes, and is said to be sound and dreamless. This method of administration is not followed by the annoying drowsiness so often present on the day after the administration of the dose of sulphonal. The draught is the better for the addition of some flavouring agent. That sulphonal is not invariably safe is shown by a series of cases published by Bresslaue, of Vienna, to which the *Lancet* makes reference. Of seventy-seven patients who were treated with the drug, no fewer than seven showed serious symptoms, and in five of those there was a fatal termination. The patients had been taking the drug for a considerable time in good doses, and had borne it well until symptoms of disturbance set in—these being great constipation, dark brown urine, &c. In the cases which ended fatally the cause of death was heart failure, with œdema of the lungs.

### MENTHOL IN LARYNGEAL AND PULMONARY AFFECTIONS.

SINCE the introduction of menthol into European materia medica as a remedy for neuralgia its uses have gradually developed, and it may now rank as an all-round medicine. One of the latest, and perhaps its most peculiar use, is that suggested by Dr. Walker Downie in the treatment of certain laryngeal and pulmonary affections. For this purpose he uses intralaryngeal injections, consisting of 10 to 20 per cent. of menthol and 2 to 4 per cent. of guaiacol, in olive or vaseline oil. The treatment was first proposed by Dr. Downie in 1889. With a hypodermic syringe, to which is attached a vulcanite laryngeal tube, he injects as much as 2 drachms of the solution into the larynx below the vocal cords (*Brit. Med. Journ.*, 1891, page 845). Immediately on the administration of the injection containing menthol, the patient experiences a sensation of warmth in the larynx, which rapidly spreads downwards to the region of the sternum, and is soon followed by what the patient usually describes as a comfortable glow all over the chest. He breathes more freely, and where tightness or a feeling of constriction across the chest is complained of, this is rapidly relieved by the menthol injection. Following on its administration there is much less inclination to cough; indeed, the relief is so great as to ensure a night's sound rest. Expectoration in phthisical patients is greatly reduced in quantity, and is much less offensive, while the general condition of the patient, especially as regards weight, greatly, in some cases marvellously, improves. Dr. Downie considers that the action of menthol is of a triple character. First, as a local anæsthetic, we have relief from cough, and that in a way greatly to be preferred to the older fashion of administration of opiates by the stomach, with their consequent deleterious effects on alimentation; secondly, it is a powerful, though comparatively harmless, stimulant; and, thirdly, an antiseptic, and, being of a highly volatile character, it is readily diffused throughout the whole lung. By its use in this fashion we have an antiseptic brought as closely into contact with the affected surface as it is possible; certainly much more completely than is the case when inhalers are employed. The oil, he supposes, is partially absorbed, but in greatest quantity is, by the cilia of the epithelium, driven upwards through the bronchi and trachea along with the mucous secretion towards the larynx, from which it readily enters the gullet. By this form of treatment the majority of his patients have had their sufferings alleviated, and a goodly proportion have not only been markedly relieved, but restored to apparent health.



## SOCIETY OF CHEMICAL INDUSTRY.

## LONDON SECTION.

THEY performed the feat which is technically known as "drowning the miller" at the meeting on Monday night, it being made up of three parts water and one of whisky, or perhaps less of the stronger element. The Chemical Society's lecture theatre positively "reeked" of the latter, Mr. A. H. Allen having brought some of his quintessences from Scotch and Irish whiskies, "grogs," &c., to show what becomes of fusel oil and other by-products in the course of time. In the first instance, Mr. Thomas Tyrer, chairman, explained that on this evening the section was to have had a paper from Professor Dewar and Mr. Boverton Redwood, but it was unavoidably delayed, and he assured the meeting that the paper would not lose by delay. He congratulated the section on the continuous supply of valuable papers that they had been favoured with in the course of the session, and hoped that next year they would be equally fortunate. The success so far was largely due to the excellent management of Mr. Mumford, secretary of the section. (Applause).

Mr. L. ARCHBUTT was then called upon to read a paper, by Mr. R. M. Deely and himself, on the

## TREATMENT OF HARD WATER.

This was a change of title, the subject having enlarged itself since the paper was announced. In the introductory part of the paper some historical reminiscences were indulged in, the authors recalling the fact that, although this year is the jubilee of Clark's water-softening process by means of lime, Dr. Henry, F.R.S., of Manchester, really was the originator of the idea fifty years before Clark patented his process; and a few years before Clark took out his patent a similar process was patented by another inventor. Clark, however, deserves sole credit for having made softening with lime an exact process, for by determining the hardness of waters by means of his soap test, and apportioning the amount of lime to be used accordingly, he carried the method a step beyond what his predecessors had done.

Coming to modern methods, the authors briefly described the requirements of water-softening for boilers and technical purposes, and spoke of some of the processes which are in use. With waters containing magnesia, filtration is found to be impossible. It may be said that a practical process must employ the cheapest chemicals, the cheapest plant, and must be applicable to all waters. The authors have a process of their own which has been in use at the Midland Railway Company's premises at Derby, where they soften 20,000 gallons of water per day; but they can carry that amount to 1,000,000 gallons if necessary, using tanks only a tenth the size of those used elsewhere. The chemicals used are lime, carbonate of soda, and a small proportion of aluminium sulphate. The tanks are of peculiar construction, the essential parts of which are:—

(1) The tank proper, with outlets at the floor and side for removal of mud.

(2) Well at the side for the admission of the mixture of chemicals. This well is part of the tank, but is only connected with it by an opening at the bottom.

(3) Steam-trajector, which sends the chemical mixture from the well to the tank, and sets up circulation with the water.

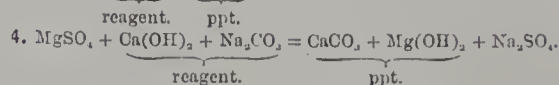
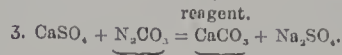
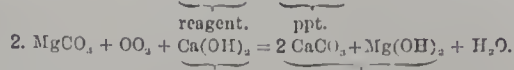
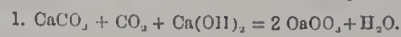
(4) Air-pipe passing down the outside of the tank, and inside it at the bottom; here it is perforated, so that when air is blown in, the mud is virtually stirred up.

(5) Small chemical tank with a tap over the well. In this the chemicals are mixed with water.

When the tank is filled with water the mixture of chemicals is run in, and at the same time the steam-trajector is set going, and finally air is blown in so as to mix the mud from the previous batch with the water. This greatly assists the deposition of the precipitate that is formed, and in this deposition the aluminium sulphate also assists. Ferrons sulphate can be used in place of that, and is cheaper. In thirty minutes the water six feet below the surface has cleared to such an extent that it only contains one grain of suspended matter to the gallon. The cost, exclusive of installation of the plant and the price of the chemicals,

is only about a farthing per 1,000 gallons for labour; and there is a great saving in chemicals compared with other processes, in which caustic soda is used, and which leaves large quantities of caustic soda and sodium carbonate in the water.

Mr. Archbutt proceeded to discuss the reactions which take place between his chemical mixture and the precipitable constituents of the water. They are as follows:—



It will be understood that in the above equations the  $\text{CO}_2$  is natural to the water, and is that which keeps the earthy carbonates in solution. Applied to the Derwent water at Derby the process gave the following results:—

## Grains per Gallon before and after Treatment.

—	Before	After
CaCO <sub>3</sub> .. .. .	9.74	2.25
MgCO <sub>3</sub> .. .. .	2.45	2.18
Na <sub>2</sub> CO <sub>3</sub> .. .. .	—	3.85
CaSO <sub>4</sub> .. .. .	5.64	—
MgSO <sub>4</sub> .. .. .	1.35	—
Na <sub>2</sub> SO <sub>4</sub> .. .. .	3.41	11.33
NaCl .. .. .	2.81	3.38
SiO <sub>2</sub> .. .. .	0.34	0.48
Total .. .. .	25.74	20.47

The hardness was thus reduced from 17.90 to 4.80. The water was converted from a brownish liquid to a green, and albumenoid ammonia was reduced by a third.

Mr. Archbutt next proceeded to show why the precipitate subsides so rapidly, this being the feature of the process, and he submitted data which proved that the stirring up of the mud has a powerful influence, reducing the suspended matter to a fourth. After the system had been in use for some time, it was found that no scale was formed in the locomotive boilers—indeed, the water removed the scale which had previously formed; but trouble began with the pipes leading to the boilers, in which a scale formed containing SiO<sub>2</sub> 11 per cent., CaCO<sub>3</sub> 42.58 per cent., MgO 24.87 per cent., alumina, iron, &c. Inquiry showed this deposit to arise from the magnesia salts in the water, part of which only is precipitated in the cold, and some more on heating, in a very fine condition, so that it is impossible to filter the water, the first portions coming through opalescent, and after that clear but extremely slow. It was found that by acting upon the water with carbonic acid gas the magnesia can be completely and quickly precipitated, and by a simple and cheap apparatus smokeless gas from coke stoves is pumped into the water, so that after the magnesia subsides the water leaves no deposit whatever in the pipes. This led the authors into an investigation regarding the action of slaked lime on magnesium carbonate. It is maintained by some that magnesia is not thrown down by lime, and the experience with the pipes seemed to corroborate this idea. Moreover it was found that when an overplus of lime was used the water acquired the opalescent appearance which is so objectionable. A bottle of this water was shown, in which calcium carbonate was at the bottom in small heavy crystals, and above that an inch of a light deposit of magnesium hydroxide. When the correct quantity of lime is used the reduction was from 1.16 of CaO to .94, and from .58 of MgO to .43. A deficiency of lime reduced CaO from 1.04 to .55, and MgO from 1.14 to 1.13. The whole subject of magnesia precipitation was entered into with great care, and the results (so far incomplete) greatly interested the meeting. In concluding, Mr. Archbutt pointed out that the softened water is as good for technical purposes as for boilers.



## DISCUSSION.

Mr. CRESSWELL (secretary) opened the discussion by asking if the organic constituents of the water were affected differently if the chemicals were added separately or in combination. Also, how would a London water, which was sometimes little better than sewage, behave. They all laughed at Maignen insisting upon using the chemicals in combination, but it seemed that he was not far wrong.

Mr. A. H. ALLEN, having elicited from Mr. Archbutt that by "calculated hardness" he meant the lime and magnesia salts in terms of carbonates, proceeded to question the existence of acid carbonates of lime and magnesia. In experiments which had been made in his laboratory they had been unable to find any such salts. He complimented Mr. Archbutt on the interest and value of his paper.

Mr. THORP questioned if the Derwent water could be called either filthy or hard, and could not understand how the chlorides increased in the softening process. He also thought the well of the tank unnecessary; but perhaps Mr. Archbutt had gone on like the inventor of the screw-propeller. At first a thing like a corkscrew was used, but it broke off, leaving only a couple of blades, which were found to work far better than the long screw. (Laughter.) Perhaps in course of time Mr. Archbutt's well would go.

Mr. HARLAND said the objection to tank-softening was that steam users had no room for the tank, and his idea was that the successful process would be one in which the apparatus would be attached to the steam-boiler, for use with suitable chemicals.

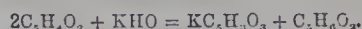
Mr. B. E. R. NEWLANDS spoke favourably of the new process, pointing out that Thames water varies almost minute by minute, and the difficulty was to adapt any one process to such conditions. Perhaps the best thing was not to push softening too far. Mr. Archbutt's chemicals were the same as Maignen's; yet the invention, without being one of startling novelty, was decidedly practical and useful.

Mr. ARCHBUTT then replied, stating that the steam injected into the tank raised the temperature of the water by 3° F. It was true that his mixture was similar to Maignen's, but the ingredients had been used separately and together long before Maignen took out his patent, and if any credit was due to anyone for the combined use of the chemicals, it was to Wanklyn. He did not agree with Mr. Allen about the acid carbonates, as he had almost completed work which showed that  $MgH_2(CO_3)_2$  is formed by passing a deficiency of  $CO_2$  into milk of magnesia. He claimed that the Derwent water was bad enough, for a sewage-pipe passed into the river a hundred yards or so above where the water was withdrawn.

The authors were thanked for their communication, and at twenty minutes to ten Mr. A. H. Allen was called upon for his paper on the

## CHEMISTRY OF WHISKY.

In continuance of his previous communication of March 16, Mr. Allen now referred to certain difficulties which are met with in the estimation of ethers by saponification with caustic alkali. In the case of aldehyde it is known that a resin is formed, and with furfural a reaction is obtained, which is represented by the following equation:—



In each case the alkaline liquid on acidification would yield a distillate containing bodies which would vitiate an ether estimation. To obviate this, and taking advantage of a process recently suggested by Müller, Mr. Allen has treated the whisky with a solution of aniline in sulphuric acid by heating for two hours in a flask with a reflux condenser, whereby the aldehyde and furfural are kept back, and the ethers are distilled.

The next point to which he referred was the oxidation of these ethers. Mr. Allen himself has recommended a saturated and acidified solution of bichromate of potash, but some chemists persist in using an acidified solution of permanganate of potash. The great objection to the permanganate is that it contains, probably in slight quantity, but still it contains perchlorate of potash, the effect of which is that when the oxidised mixture is distilled perchloric acid passes over in the distillate, is precipitated on the addition of barium, and may actually be weighed and taken

for valerate of barium, and from the weight found a definite amount of amylic alcohol may be calculated. Mr. Allen experimentally proved the presence of perchlorate in permanganate of potassium, showing that an acidified mixture gave a distillate which bleached methyl orange and phenolphthalein. Chloroform to some extent has the same objection, and that is why he prefers the use of tetrachloride of carbon. In boiling the permanganate solution it was also noticed that the distillate was pinky, showing that a certain amount of spitting had taken place. The next point of the paper dealt with the absorption of amylic alcohol, valeric acid, and other bodies by cork. The author had found that the cork of a 2-gallon jar of whisky kept on its side absorbed as much fusel oil as was contained in 6 oz. of the whisky. He therefore took some of the spirit, and placed cork and oak shavings into separate portions, and a distillate of the shavings afterwards showed that they had absorbed fusel oil equivalent to 11 per cent. of what was in the whisky. Specimens of these were shown. This matter has direct connection with the custom of grogging whisky casks. A certain amount of the spirit always remains in the wood, and it is taken out by pouring water into the cask, and afterwards distilling the aqueous fluid. A sample of grog from a cask in which whisky had been kept for eighteen years was obtained, as well as the first and final distillates from the grog. The grog itself contained 291 grains of amylic alcohol per gallon. The first distillate from the grog had a strong odour of aldehyde, and contained 12 per cent. of acetic ether. The last distillate contained no less than 803 grains of amylic alcohol per gallon, and was also rich in furfural. It may be noted that samples of Scotch whisky contained 89 grains and Irish whisky 78 grains of amylic alcohol per gallon. Now these results clearly show that in the cask there is a disappearance of amylic alcohol due to absorption, and that etherification does take place by ageing is shown by the first distillate containing aldehyde and acetic ether. Of course it is also probable that when the aldehyde is oxidised it is converted into acetal, which is a very fragrant body.

This was merely the gist of Mr. Allen's paper; and, as the hour was pretty far advanced, he went through it very rapidly. A few brief remarks by members followed; and a vote of thanks was unanimously passed to the author.

## ANNUAL MEETING.

The CHAIRMAN announced that the next president of the society would be Professor Emerson Reynolds, of Dublin, he having been nominated by the council. It was proposed to hold the annual meeting in Dublin on July 8, 9, and 10 of this year. He also referred to the formation of a Yorkshire branch of the society, and hoped that the union of Bradford and Leeds as the headquarters of the section would be as fruitful of good work as the union of Glasgow and Edinburgh had been for the Scottish chemical industries. We refer to this matter elsewhere in this issue.

## Gazette.

## PARTNERSHIP DISSOLVED.

Wildash, T., & Sons, Bartholomew Close, City, and Sugar House Lane, Stratford, varnish manufacturers; as far as regards T. Wildash.

## THE BANKRUPTCY ACTS, 1883 AND 1890.

## RECEIVING ORDERS.

Powell, A. E., & Co., Swindon, manufacturers of Moonseed bitters.  
Powell, A. E., Swindon, patent-medicine vendor.

*The following amended notice is substituted for that published in the "London Gazette" of April 24, 1891:—*

Thomas, Daniel Griffith, Cardigan, chemist and druggist, grocer, and seedsman.

## ADJUDICATIONS.

Greenway, James Riley, Tunbridge Wells, doctor of medicine.  
Thomas, Daniel Griffith, Cardigan, chemist and druggist, grocer, and seedsman.





*The following applications for Patents have been registered at the Patent office.*

**Acid (Sulphurio).**—5,777.—April 3, 1891.—W. T. Bruce.

**Aërated-water Apparatus.**—4,278.—March 10, 1891.—C. O. Neudecker and G. A. Heinemann. A new or improved faucet for aërated liquids.—4,564.—March 14, 1891.—E. S. Chavasse. Improvements in apparatus for aërating water and other liquids.—4,700.—March 16, 1891.—J. Nadler and S. Obermayer. Improved means for stoppering or closing aërated-water bottles.—4,746.—March 17, 1891.—G. Bowen and T. Minshall. Machinery for filling aërated liquids into bottles and for syringing the same.—5,165.—March 23, 1891.—W. P. Bonwick. A device for facilitating the charging of bottles with aërated liquids.—5,746.—April 3, 1891.—J. P. Jackson.—5,850.—April 6, 1891.—A. E. H. Lozé. Improvements in stoppers for aërated-liquid containers.

**Aperient Lozenge.**—6,115.—April 9, 1891.—H. Jeffries. Medicated aperient lozenge.

**Beverages.**—5,326.—March 25, 1891.—W. Hucks.—Aërating beverages for immediate consumption.

**Bottle.**—4,707.—March 16, 1891.—A. R. Edwards. An improved druggist bottle.

**Bronchitis Inhaler.**—4,151.—March 9, 1891.—A. H. Wood. A combined bronchitis-kettle, bronchitis-inhaler, and vapour-diffuser.

**Capsuling Apparatus.**—4,963.—March 20, 1891.—C. Gentle.

**Cellulose.**—4,606.—March 14, 1891.—O. Imray. An improved manufacture of cellulose.

**Chemicals.**—4,311.—March 10, 1891.—C. F. Claus. Improvements in the manufacture of the aluminates, sulphates, and carbonates of soda and potash and the production or recovery of alumina, &c.—4,547.—March 13, 1891.—J. Anderson and A. Brand. Improvements in the manufacture of carbonates of sodium and potassium and of chlorine.—5,999.—April 7, 1891.—J. Greenwood. Improvements in and relating to the manufacture or production of chlorine and sodium amalgam.

**Chlorine.**—6,500.—April 15, 1891.—J. Kolb.

**Corn-plaster.**—5,112.—March 21, 1891.—F. E. Carpenter.

**Disinfectant and Insect-destroyer, &c.**—4,352.—March 11, 1891.—A. Lutschaunig. A disinfectant, antiseptic deodoriser, vermin and insect destroyer, &c.

**Drenching-bottle.**—4,416.—March 11, 1891.—O. A. Outram.

**Dyspepsia Remedy.**—5,751.—April 3, 1891.—C. Cox.

**Electric Sprays.**—5,131.—March 23, 1891.—H. N. Lawrence. Means for applying electricity through jets, streams, or sprays of fluids and vapours for therapeutic and other purposes.

**Feeding-bottle Requisites.**—6,370.—April 14, 1891.—A. H. Bates. A protective covering for infants' feeding-bottles.—6,412.—April 14, 1891.—E. Edwards. Stoppers for feeding-bottles.

**Feeding-bottles.**—6,064.—April 8, 1891.—P. H. Antrobus.

**Filters.**—4,817.—March 18, 1891.—R. W. Barker.—5,108.—March 21, 1891.—A. W. Johnson. A self-cleaning pressure filter.

**Food Preparations.**—4,195.—March 9, 1891.—F. T. Simpson and J. Cox. Improvements in food preparations and medicines.

**Inhalers.**—5,353.—March 25, 1891.—S. I. Mansel-Howe.—5,994.—April 7, 1891.—F. E. S. D'Odiardi. Improvements in electro-inhalers.—6,315.—April 13, 1891.—A. Chevrier.

**Insecticide.**—6,442.—April 15, 1891.—C. Williams and C. H. Jones. The cream insecticide—non-poisonous.

**Lactic Acid.**—5,420.—March 26, 1891.—W. S. Squire. Obtaining lactic acid from distillers' spent wash.

**Malt Jelly.**—4,291.—March 10, 1891.—W. Robertson. An improved article of food or solidified malt-extract jelly.

**Poultices.**—4,338.—March 11, 1891.—W. H. Kerr.

**Quinine Sulphate.**—4,487.—March 12, 1891.—R. Ancizar. Improvements in the manufacture of sulphate of quinine.

**Remedy for Colds.**—5,161.—March 23, 1891.—B. Wechsler. The cure of incipient colds, influenza, neuralgia in the head, and affections of the nose.

**Salicylic-acid Derivatives.**—5,263.—March 24, 1891.—J. Y. Johnson. Improvements in the production of salicylic-acid derivatives containing chlorine and sulphur.

**Suppositories.**—4,816.—March 18, 1891.—E. G. Eberhardt. Improvements in.

**Syphons.**—4,703.—March 16, 1891.—W. H. Davis. Syphons for containing aërated liquids.—5,665.—April 1, 1891.—J. M. MacDonald. An improvement connected with syphons for aërated waters.—6,167.—April 10, 1891.—H. Ridley and H. Ashcroft. The self-acting floating syphon.—7,093.—April 24, 1891.—J. Eugster and J. Koertgen.

**Syringes.**—5,088.—March 21, 1891.—W. H. Munns.—6,043.—April 8, 1891.—M. Risch and C. Vieweg. Surgical antiseptical syringe.—6,445.—April 15, 1891.—G. Whyte. Hypodermic syringes.

**Toilet Soap.**—6,829.—April 21, 1891.—J. W. Gardner and T. Smithson.

**Veterinary Ointment.**—5,459.—March 28, 1890.—R. H. C. Browne-Cave. Ointment for use in the treatment of horses or other animals suffering from splints, curbs, or similar affections.

*The following specifications have been published.*

1890.

- 1,015. Ellershausen. Soda and potash. 6*d*.
- 4,005. Yeomans. Filters. 6*d*.
- 4,171. Négrier. Concentrating sulphuric acid. 8*d*.
- 4,216. Tipping. Aërating, &c., liquids. 11*d*.
- 5,124. Saunders. Making aërated beverages. 8*d*.
- 5,442. Burghardt. Nitrate of ammonium. 6*d*.
- 5,571. Campbell & Boyd. Obtaining chlorine, &c. 6*d*.
- 6,416. Davis, G. E. & A. R. Chlorine. 8*d*.
- 6,698. Davis, G. E. & A. R. Chlorine. 6*d*.
- 6,769. Stott. Syringes. 6*d*.
- 7,075. Hunt & Mackey. Filtering apparatus. 8*d*.
- 7,325. Muirhead. Distributing liquid insecticide, &c. 11*d*.
- 7,490. Yates. Stoppers for medicine-bottles, &c. 8*d*.
- 7,777. Neuman. Feeding-bottle interior tubes. 6*d*.
- 9,048. Chinnery and others. Aërated, &c., liquids. 8*d*.
- 13,185. Axford. Syruping-machines. 8*d*.
- 19,121. Needham. Packing chloride of lime, &c. 4*d*.
- 19,667. Leathers. Medicine tank. 6*d*.
- 20,054. Davison. Dental forceps. 8*d*.
- 21,078. Leith. Bicarbonate of soda, &c. 8*d*.
- 21,194. Foss. Medicinal preparation. 4*d*.

1891.

- 474. Koellner. Filter. 6*d*.
- 1,509. Lake. Filtering apparatus. 8*d*.
- 1,521. Lake. Filtering apparatus. 11*d*.
- 1,985. Roy. Tooth-brushes. 8*d*.
- 2,261. Walls. Capsuling bottles. 6*d*.
- 3,699. Moore. Spraying apparatus. 6*d*.





GOLD MEDALS 1884-1885-1886-1888.

# "SANITAS" DISINFECTANTS

Largest Sale in the World.

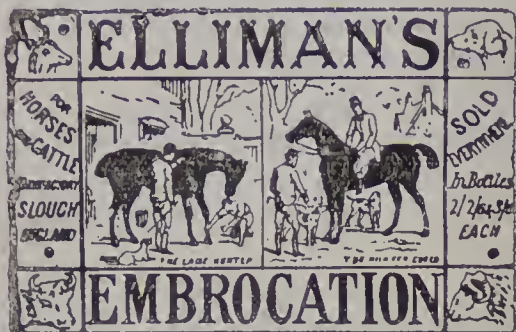
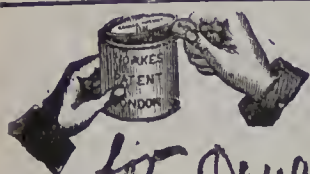
SANITAS OIL," for Inhalations in Lung and Throat Complaints.

KINGZETT'S MERCURIC BACTERICIDE.

KINGZETT'S PATENT PRESERVED PEROXIDE OF HYDROGEN.

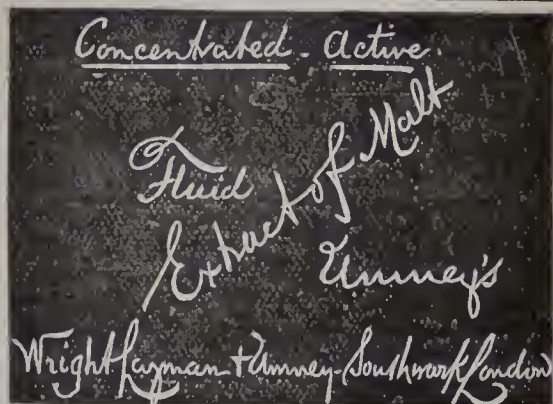
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*Noakes' Tins*  
*for Druggists' use.*

Write for Price  
List No. 14.  
B. NOAKES & CO.  
Dockley Road,  
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**PATENTS AND TRADE MARKS.**  
W. P. THOMPSON & CO., F.C.S., M's I.M.E., &c.,  
6 Lord Street, LIVERPOOL; 6 Bank Street, MANCHESTER; 63 Long Row,  
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General Patent and Trade Mark Agents.  
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Annual Income, £702,000.

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Premiums Moderate. Losses settled with promptitude  
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and Druggists in both Town and Country Districts.

### NOTICE.

ROWLAND'S MACASSAR OIL, KALYDOR  
AND ODONTO.

Any Chemist who publishes a Monthly or Annual  
List of Prices circulating among the general public  
will oblige Messrs. A. ROWLAND & SONS, of 20 Hatton  
Garden, London, by sending a copy of last issue, and  
stating price for an advertisement of page or half-  
page on cover. Counter Bills and Dummies always  
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## MEDICAL ELECTRICITY.



EVERY DESCRIPTION OF  
Galvanic, Faradic, and Electro-Magnetic  
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Lists free. Descriptive Catalogue, 100 illustrations,  
32 pages, 4 stamps.

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## Fletcher's Concentrated Liquors

ARE THE CHEAPEST BECAUSE THEY ARE THE BEST.



### THE PHARMACEUTICAL COUNCIL.

THERE was very little public business for the members to do  
this week. The meeting was dull accordingly. Indeed, if  
there were a conspiracy of silence amongst the members,



# The Chemist and Druggist

## SUPPLEMENT

Businesses Wanted.  
Businesses for Disposal.  
Premises to Let.  
Auction Sales.

SATURDAY, MAY 9, 1891.

Partnerships.  
Situations Vacant.  
Situations Wanted.  
Miscellaneous.

### CHEMISTS' TRANSFERS.

**MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.**

#### CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1848, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

- 1.—LONDON, W.C.—Good-class Dispensing and Retail business in a good business locality; returns last year nearly £1,000, with good profits; single-fronted shop, well fitted, and good stock; about £800 required.
- 2.—LONDON, N.W.—Main road; good-class Dispensing and Retail, with some Prescribing; returns nearly £850 yearly, in a single-fronted shop and good stock; price about £600; open to an offer.
- 3.—LONDON, S.E.—Good ready-money locality; Retail and Dispensing Business, with good Prescribing; held by vendor many years; returns nearly £500 yearly; double-fronted shop, well fitted, and good stock; terms, valuation only required.
- 4.—LONDON (near the Bank).—Dispensing and Retail; capable of very large development; present returns £950 yearly; about £1,000 required; applicants must enclose trade card or reference.
- 5.—LONDON SUBURB (near the Crystal Palace).—Old established Business; good position; returns last year £1,000, with good profits; large and convenient shop; good house and garden; held on good lease. Full particulars on receipt of reference.
- 6.—LONDON, N.W.—Very handsomely-fitted shop and good house; business Light Retail and Dispensing; can be largely extended; present returns about £8 per week; vendor, having other engagements, will accept any reasonable offer.
- 7.—EASTERN COUNTIES.—Old-established Business; commodious premises; good house; attractive garden; returns nearly £1,650 yearly, with good profits; vendor being anxious for an early sale, will accept valuation of stock and fixtures.
- 8.—HANTS. & GLASGOW.—Mixed Business, situated in a good business locality; returns £1,000 yearly; capital opportunity for a good business man; price about £600, valuation terms can be arranged.
- 9.—WESTERN CITY.—Light Retail and Dispensing Business; held by vendor many years; returns nearly £800, with good profits; large house; shop well fitted and good stock; valuation terms to be arranged.
- 10.—SOUTH COAST.—Fashionable locality; good-class Retail and Dispensing Business; returns nearly £700 yearly, with good stock; shop and good stock; good 6-roomed house on lease; price about £480.
- 11.—DEVONSHIRE (Death Vacancy).—Very old-established good-class Business; returns nearly £500 yearly, with good stock; shop well fitted; large house; business open to the fullest investigation; immediate sale is required, and the Exors. will accept any reasonable offer.
- 12.—HOME COUNTY.—Dispensing and Retail; returns last year, £300, increasing; double-fronted shop and commodious house, with garden and conservatory; very pretty situation; price £650.
- 13.—SURREY.—Unopposed Business; capital position; has been much neglected; about £250 required; good opportunity for a branch or well suited for a beginner.
- 14.—LEICESTERSHIRE.—Good family Business; returns £800 yearly; very good profits; some good proprietary articles; large handsome shop and good residence, with garden, &c.; price about £700.

Particulars of any of the above will be furnished on application.

**N.B.—NO CHARGE TO PURCHASERS.**

Other Businesses, Town and Country. particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

### SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

**MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.**

**ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.**

### PARTNERSHIPS.

**PARTNERSHIP.**—South Africa; £1,500 cash required. For particulars write "Acacia," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED, Partner,** with £3,000 or £4,000 in old-established profitable Wholesale; principals only. "Gulielmus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**MANAGER,** with view to early purchase, or working resident partner in a good-class business; Paris and West-end experience; West-end or large seaport preferred; qualified; aged 28. B. A. B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**VALUABLE OPENING.**—Active Partner, qualified, prepared to invest for extension at least £200 in a successful Retail and Wholesale Business in Manchester; two new and valuable Medicinal Specialties of much value, largely sold; only bona-fide applications, stating references, will be entertained. Apply to the International Drug Company (Limited), 159 Stretford Road, Manchester.

**A CHEMIST** in the country, doing £4 a week in an aerated tonic drink, wants Partners or Agents to extend same; worked on zoedone lines; no capital or machine requisite (but desirable); the drink is so palatable and appetising commands forthwith a good sale; capable of indefinite extension; particulars sent to principals only; sample of essence for 1 doz., six stamps. "Zero," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

### APPRENTICESHIPS.

**WANTED, an Apprentice;** good home; Mixed Country business; light hours; moderate premium required; passed the Preliminary preferred. Bond Smith Brothers, Potton.

**A WELL-EDUCATED Youth,** who has passed the Preliminary examination, wanted as Apprentice; premium moderate; comfortable home, and every facility for learning the business in all its branches. E. Wightman Bell, F.O.S., Spalding.

**APPRENTICE.**—In a first class Dispensing business, where a youth would have every opportunity of learning his business in a thorough manner; must be tall and good appearance, and passed Preliminary Exam.; moderate premium; 4 years' indentures. C. Lowe & Co., Surbiton, S.W.

### FOR SALE.

**FOR SALE.**—One 4-ft. 6-in. mahogany wall-case, second-hand, 6l.; 180 gold-labelled rounds and jars, 8l. 5s.; 31 3-lb. blue jars, labelled, 2s. each; one 12 ft. range new mahogany drawers, with glass labels and knobs, 9l.; one 8-ft. ditto, mahogany top, 50s.; one 8-lb. mirror-centro disposing-screen, 6l. 10s.; one ditto, new, 6l.; four 3-gall. second-hand carboys with cut stoppers, 9s. each; four 4-gall. ditto, 12s. 6d. each; three 6-gall. ditto, 15s. 6d. each; two 8-gall. ditto, 22s. 6d. each. Richard Tomlinson & Son, Medical Fitters, Bond Street, Birmingham.



**F. J. BRETT,**  
**VALUER, LEICESTER,**

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

**BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.**  
STOCKTAKING UNNECESSARY.—Stocktaking is always dreaded by Chemists, and with a competent Valuer is not necessary.

F. J. BRETT is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.

STOCKS AND FIXTURES BOUGHT FOR CASH.

**STAFFS.**—General Retail; returns £600; cash trade; valuation about £500.**CORNWALL.**—Light Retail and Prescribing; returns £350; price £150.**SURREY.**—Retail and Dispensing; returns £750; price £700.**NOTTINGHAM.**—Returns £600; Prescribing, Retail, and Dispensing; price £300.**MIDLANDS.**—Trade in Packed Goods, doing with Chemists, Grocers, and Stores; returns £500; can be largely increased; very profitable; price £200.**PLYMOUTH.**—Retail, Prescribing, and own Specialties; returns £400; excellent opening for Dentistry; price £300.**BUSINESSES FOR DISPOSAL.**

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**CHEMIST** and Druggist's Business (Genuine) for Disposal, in consequence of ill-health; rent £50. For particulars apply to H. H. Mason, 65 Old Street, E.C. No agents.**OLD-ESTABLISHED** Drug Business, in small country town in Notts; returns about £350; inspection invited. Apply, "Duplex," care of Southall Bros. & Birelay, Birmingham.**BLACKBURN.**—Good Mixed Business, returns exceed £2,000, for immediate disposal under exceptional circumstances; a genuine bargain. David Smith & Garnett, Chartered Accountants, 22 Booth Street, Manchester.**CHEMISTS** Shop and Premises, handsomely fitted, in densely populated part of Leekham, and just closed through exceptional circumstances; will be transferred with lease at fixtures valuation. Apply, 6 London Road Southwark, London.**FOR** sale, an old-established Chemist's Business in a very good position in Skipton, at a valuation of the stock and fixtures; rent £60; good house and shop. Apply W., care of Hirst, Brooke & Hirst, Leeds.**FAMILY** and Dispensing Business; old-established (with Post Office); handsomely fitted, well stocked; several good Proprietaries; house large, convenient, private entrance, garden, greenhouse; £3.0 or valuation. "Suburban," Willows, Francis & Butler, 101 High Holborn, W.C.**£270.**—S.E.—Retail, Dispensing and Prescribing Business; under management; well stocked; returning £378; capable of great increase; rent £40 good house, garden, back entrance; will accept £270. Apply, "Alpha," 4 Douglas Street, New Cross, S.E.**LONDON, N.**—Old-established Retail and Dispensing Business; best position in main road; large modern shop, fittings new last year, good stock; returns nearly £900; lease 14 years; to be sold a great bargain; open to offer. W. Lane, 62 Upper Tollyington Park, N.**YORKSHIRE.**—Family, Dispensing, and Prescribing Business, with Wine and Spirit Agency, for disposal; well-fitted shop and good house, in suburb of large town; would suit a young man just beginning. Address, "Lotus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**LONDON** Suburb.—First-class old-established Dispensing and Light Retail Business; good house, garden, and conservatory; low rent; price £1,200; satisfactory reasons for disposal; no agents. Apply by letter to "Pharmacist," care of Mr. Farrant, 1 Saadoun Villa, Mill Lane, West Hampstead.**NOTTINGHAMSHIRE.**—For disposal, a genuine Retail and Prescribing Chemist's Business, situated a few miles from Nottingham; handsomely-fitted shop, and in main thoroughfare; well stocked; splendid opportunity. Address, "Cortex," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**LONDON, N.**—A good-class Family and Dispensing trade, with good sale of own Proprietaries; returns £900; very profitable; desirable family residence in delightful suburb; price £750; strict investigation and trial allowed. Write for particulars to R. S., care of Mr. Hubbard, 8 Ronalds Road, Highbury, N.**IMMEDIATELY.**—A small Light Retail and Dispensing Business in Home County; well stocked; capable of extension; good opening for Dentistry; very good house, with productive garden; healthy neighbourhood; £400 required. Address, "Picture," care of Messrs. Hill & Son, 101 Southwark Street, London, S.E.**OLD-ESTABLISHED** Chemist's Business for sale; stock and fixtures at valuation; no goodwill; bills for several years for inspection; house, premises, garden may be purchased if desired; no other Chemist; no town within seven miles; good water supply; blindless cause of disposal. Apply to Mr. Rust, Thaxted, Essex.**GLOUCESTERSHIRE.**—Unopposed Retail, Dispensing, and Prescribing Business; returning £300; rent very low; house has 9 good rooms; population 5,000; selling solely through illness; price £400 or reasonable offer; good opening for Dentistry; every profit given as to bona fides. "Fermum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**Messrs. CROCKER & CO.**Trade Valuers, Transfer Agents, and Accountants,  
**15 WALBROOK, E.C.****HOME COUNTY.**—Good class Dispensing Trade in best part of pretty market town; returns £600; price £550; worth attention.**SURREY.**—Light Retail and Dispensing; returns £800; price £650; good house; handsome pharmacy; agency pays rent.**MIDLANDS.**—Unopposed light profitable Retail, returning £400; one half net profit; good garden, well stocked with fruit-trees; price £200.**ESSEX.**—Light Retail, Dispensing, and Prescribing trade; returns £720; price £675; rent £45; 11-roomed house and large garden.**EASTERN COUNTIES.**—An old-established Retail and Dispensing Business, in best part of market town; returns £650; price £450.**SUSSEX.**—Retail and Dispensing trade (no heavy); returns £500; price £450; good house; low rent.**LONDON, N.**—Good-class Dispensing Business; very handsome shop; returns about £900 yearly; very profitable; capital house, with yard and warehouse, held on long lease; price £750.**LONDON, N.**—Good-class Family Business, Retail and Dispensing; returns about £850 yearly; handsome shop and good stock; price £600.**NO CHARGE TO PURCHASERS.**

VALUATIONS A SPECIALITY. TERMS ON APPLICATION.

**BUSINESSES FOR DISPOSAL—Continued.****DISPENSING** Business for disposal in northern suburb; present returns about £400, plenty of scope for increase; accept £120. 193/41, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**DEATH VACANCY**, seaside, North of England.—To be sold, in consequence of the death of the proprietor, a first-class Retail, Prescribing, and Dispensing Business; returns £1,000 per annum; valuable Proprietaries; every investigation to purchaser; references; moderate price. Apply, "Wilfrid," c/o Evans, Sons & Co., Liverpool.**LONDON.**—Returns about £950, net profits 30 per cent.; a business that can be largely increased by personal attention; good stock, Proprietaries, &c.; business thoroughfare; trial introduction and every investigation allowed; about £800 required, of which part can remain on easy terms. Apply, Hall, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**MANUFACTURING** Wholesale Business for Sale (Surgical Appliances and Druggists' Sundries).—A profitable and rapidly-growing business, with an already excellent connection; net profits average about 50 per cent.; an exceptional opportunity for an energetic young man; reason for disposal proprietor unable to give personal attention; £1,000 required. Address, 21/63, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**BUSINESSES WANTED.****WANTED**, a good Country or Seaside Business, returning not less than £800, for cash; could negotiate at once; send full particulars; no agents. "Minor," care of Smith, Chemist, Nailsworth, Glos.**IN** one of the Home Counties (preferred), a Retail and Dispensing Business; returns not less than £500 yearly; advertiser is leaving London on account of his health, wishes to meet with a reliable concern, for which he is prepared to pay cash. Confidential particulars to J. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**SITUATIONS OPEN.****JUNIOR** Assistant required, indoors. W. Lane, 62 Upper Tollyington Park, N.**ASSISTANT** required at once, indoors, £1 per week, for one month. W. H. Hues, Oncinist, Huddersworth.**ASSISTANT** wanted. Apply, with references and photo (to return), Coleman, Wolverhampton.**CHEMIST'S** Junior Assistant by about the 18th inst. G. H. Lodge, L.D.S., Chemist and Dentist, Rotherham.**JUNIOR** or Improver; good Counterman. Apply, stating age, salary, &c., Martin, Pharm. Chemist, Southampton.**LOCUM-TENENS** wanted for fortnight, commencing June 1. Apply, stating references, &c., to Dolman, Chemist, Cheltenham.**FIRST-CLASS** Pill Maker and Coater wanted at once; good wages to a good man. Lorimer & Co., Britannia Row, London, N.**JUNIOR** Assistant, willing to make himself generally useful; state age salary, and reference, also photo, if convenient. R. Lemmon, Hythe, Kent.**WANTED**, a good active Assistant, for the Retail Counter. Reply, with reference and salary required (outdoors), to James Stewart, Chelmsford, Cheltenham.**WANTED**, at once, active obliging Assistant, about 21, for Dispensing &c. State age, height, and salary required, Mason, Chemist, Parson's Green, Fulham.**WANTED**, immediately, senior Assistant, qualified, for West end; indoors (but bedroom provided out); salary £60. Apply to T. Tomlinson, 2 Lower Seymour Street, W.**JUNIOR** Clerk, about 18, accustomed to invoicing and the general routine of an office. Apply, with full particulars, to T. Morson & Son, 33 Southampton Row, W.C.



**DRUG Trade (Wholesale).**—Wet Counter man wanted, with experience. Apply, by letter, stating wages and qualifications, to M. K., care of Messrs. Street & Co., 30 Cornhill, E.C.

**ASSISTANT** wanted, in a large West-end Store. State age, height, and experience, if by letter, or apply before 11 A.M., to Drug Department, York House, Regent Street, S.W.

**WANTED**, immediately, a Junior or Improver in a Mixed Country business; no heavy or dirty work; indoors. Apply to R. H. Treweek, Chemist and Stationer, Pembroke.

**WANTED**, Assistant, about 22 years of age, to live indoors; good home comforts; would occasionally travel; send carte and salary wanted. Carr & Son, Pharmaceutical Chemists, Berwick-on-Tweed.

**WANTED**, Junior, Improver, or part-time Assistant (indoors). Gentlemen will oblige by sending full particulars, enclosing photos, or by calling on Skewer, 2 Upper Street, Islington (near the Angel).

**LABORATORY.**—Competent Assistant in Analytical and Manufacturing Laboratory. Apply, stating age, experience, and references, to Brady & Martin, Northumberland Road, Newcastle-upon-Tyne.

**ASSISTANT**, about 21, for a Mixed Country business; short hours and no Sunday work. Apply, stating age, height, salary, reference, when disengaged, with photo (to be returned), Pearce, Chemist, Tavistock.

**WANTED**, immediately, a good Junior Assistant, to be at branch or principal establishment. Apply, stating age, salary, and photo. Also a Manager for branch; qualified. E. C. Ashford, Chemist, Northampton.

**A QUALIFIED** Assistant; indoors; not under 24; accustomed to good-class Country business; must be competent, energetic, and trustworthy. State usual particulars, and enclose photo, to J. G. Mellor, Warwick.

**AT once**, until the end of October, Junior (outdoors); state salary required per week and usual particulars. H. J. Jackson, Ph. Chemist, Bridlington Quay. Applications not answered within the week please consider declined.

**A QUALIFIED** Assistant of good experience for high-class business; good and progressive salary (outdoors) offered to an energetic man. Apply, with full particulars, to "Chemist," 32 Kellett Road, Brixton, London, S.W.

**WANTED**, competent Assistant, with Minor qualification and good Dispensing experience. Apply, stating full particulars as to age, height, salary required, &c., to Reynolds & Branson, 14 Commercial Street, Leeds.

**SCIENTIFIC APPARATUS.**—Assistant in the Chemical and Scientific Apparatus Department (outdoors). Apply, stating age, experience, and references, to Brady & Martin, Northumberland Road, Newcastle-upon-Tyne.

**WHOLESALE Drug Trade.**—Required in the office of a leading Wholesale Drug House, a sharp young Invoice Clerk; good and quick writing indispensable. Address, W., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, immediately, in old-established Family and Dispensing business, 20 miles from London, a Junior Assistant; good Dispenser. Please give age, references, and salary required, to L. Battley & Watts, 2 Whitecross Street, E.C.

**WANTED**, a Youth who has served part or is just out of his time, and who knows something of Dispensing and the general routine of a Mixed Country business; comfortable home; time for study; healthy locality. Apply to Johnson Cripps, Reepham, Norfolk.

**WANTED**, at once, qualified Assistant; one accustomed to quick business; abstainer preferred; a permanency to a steady but active man; must be able to take sole charge of Dispensing, sale of poisons, &c.; preference given to a young man. Isaac, Dudley, Wores.

**WANTED**, by the 30th May, an experienced Assistant for the Dispensing and Retail; Scotch or Welsh preferred. Apply, stating age, salary expected (in or out doors), experience, references, &c., to "Alpha," care of Messrs. Evans, Sons & Co., 55 Hanover Street, Liverpool.

**WANTED**, active Junior (outdoors), about 18, for pushing Retail business; must be quick and reliable, and a good Counterman. Apply, stating age, height, experience, reference, and salary required, enclosing photo, to J. & J. Thompson & Co. (Limited), 192 Manchester Street, Oldham.

**REPRESENTATIVE** to call on Medical Men and Hospitals in London to introduce a Pharmaceutical Preparation; one at present so employed to work this as an extra; give full particulars in confidence, remuneration required, to P. G., care of Hodgkinson, Preston & King, 81 B shopgate Street.

**ASSISTANT Dispenser** wanted at St. George's Hospital, S.W.; salary £100 a year; must hold a qualification of the Pharmaceutical Society. Applicants, accompanied by three testimonials of recent date, must be sent to the Secretary not later than the 16th inst. C. L. Todd, Secretary. 6th May, 1891.

**TRAVELLER** wanted for Lancashire, Cheshire, Westmoreland, and Cumberland, to call on Mineral-water Manufacturers and Confectioners; one who understands the trade preferred. Address, stating age, experience, salary required, &c., to F. B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, in a Pharmaceutical Laboratory (London) a bright young fellow as Practical Chemist; must be a trustworthy analyst, and accustomed to manufacturing operations; commencing salary £80, with good prospects. Address "Stillinger," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**JUNIOR**, for good-class Retail and Dispensing. Full particulars, J. Wyllie, 66 St. Giles's Street, Oxford.

**THOMPSON**, Pharmaceutical Chemist, Putney, requires immediately a Junior Assistant (indoors), also an Apprentice.

**A GOOD** Junior wanted; time to study if required. Apply, after Saturday, G. S. Boutall, 52 Marlborough Street, Russell Square.

**A** active and obliging Junior, about 20; abstainer preferred. Apply, giving full particulars, to S. Stepheas, Chemist, Millers' Lane, Huddersfield.

**MINOR**; indoors; to manage Branch; 1½ hour's Dispensing at local hospital; £50 and commission; good references; photo. Phillips & Worts, Ealing, W.

**FOR** June 2; an Assistant of good address and experience; two kept. Apply, with full particulars, to W. G. Blackham, 675 Holloway Road, Upper Holloway, N.

**DRUG Store Trade.**—Good man wanted to push a trade; must have undoubted character and ability. Address, S. Chenoweth, 9 Mount Street, Blackburn.

**DRUGGIST'S** Porter required; must have had previous experience in a Wholesale house. Apply, by letter, to Oldell, Pattison & Co., 17 Todd Street, Manchester.

**IMMEDIATELY**, Junior Assistant, indoors, wanted for good Mixed Chemist's business; must have good character. State full particulars, J. Hern, Leach Street, Monument Road, Birmingham.

**MANAGER** wanted for a small Mixed business; not under 27 years of age. Apply, stating age, salary, experience, with references, to Francis Swift, Chemist, 33 Chatsworth Road, Clapton Park, N.E.

**AT once**, Assistant (indoors) in Light Retail and Dispensing business; only one kept; dwelling-house apart from business. State age, reference &c., and when disengaged, to T. Fox, Gr. at Milver.

**WANTED**, a competent Assistant; qualified; must be a quick and active Counterman. Send photo, and full particulars as to character, salary required, &c., to Prescott 10 Tintine Square, Hanley.

**A QUALIFIED** Assistant wanted (indoors) in a Light Retail and Dispensing business. State experience, age, height, and salary required, Elliott, 192 Uxbridge Road, Shepherd's Bush, London, W.

**A JUNIOR** Assistant (indoors), two kept, for good class Dispensing business. Apply, stating age, height, reference, and salary required, J. T. Bickford, Strand, Exmouth. Letters not answered in three days declined.

**JUNIOR** Assistant (indoors); Light Retail and Dispensing; hours 8 to 8.30, Wednesday 4, Saturday 1 day; knowledge of postal duties preferred, but not essential. Full particulars, with photo if possible, Gibson, Chemist, Reading.

**QUALIFIED** Assistant to manage a Branch, with Wine, Spirits, and Bottled Beer attached; live on premises, with use of unfurnished apartments; married man not objected to. Apply to S. Green, Post Office, Nunhead Grove, S.E.

**WANTED**, immediately, a qualified Assistant, L.P.S.I. preferred, to manage a branch business. Apply by letter, stating age, salary required, and enclosing photo (to be returned), to "Alpha," Messrs. Hunt & Co, Westland Row, Dublin.

**A COMPETENT** Assistant (Junior), for first class Dispensing and Retail Business; must be a quick and reliable Dispenser. State full particulars of experience, with age, height, salary required, and enclose photo, to W. Pries, Chemist, Eastbourne.

**IMMEDIATELY**, a competent qualified Assistant, with good all-round experience; one desiring a permanency preferred. Apply by letter, stating age, height, salary, and reference, "M.P.S.," 49 Shepherd's Bush Road, West Kensington Park, London, W.

**WANTED**, qualified Assistant immediately, outdoors, for General Mixed business, with postal work. Apply, stating age, height, and salary required, enclose photo (to be returned), good references necessary, Knott Bros., Chemists, Bolton.

**WANTED**, a gentlemanly Junior, about 19, requiring time for study; opportunity for attending Wills' evening lectures; must be a good Counterman. State height and references, with photo (which will be returned), to Dunn, Chemist, Gravesend.

**JUNIOR** wanted at once; must be a good Counterman and obliging to customers; hours 8.30 to 9 p.m., no Sunday duty, one evening off a week. Please state full particulars, salary required (outdoors), if convenient enclose photo, T. Lewis, Chemist, Preston.

**WANTED**, an Assistant for Mixed business (indoors); Minor qualification; aged 21 to 25. Also a good Junior, aged 21 to 23. Apply, stating age, height, salary required, religion, and references, which must be unexceptionable, to J. B., 10 Kaludah Terrace, Widnes.

**A MANAGER** for a Branch wanted by the end of May; must be qualified, and of Christian principles; good references indispensable. Apply, personally (if possible), after Monday next, to J. R. Wooster, 202 High Road, Cuswick, W. (Turnham Green Railway Station).

**JUNIOR**; qualified or not; accustomed to good-class Retail and Dispensing business; a knowledge of the Photographic business preferred. Apply, in first instance, with usual particulars, to "Botany," Messrs. Allen & Hanbury's, Plough Court, Lombard Street, E.C.

**NEAR GREENWICH.**—Wanted, Assistant; good Chemist and Medical Botanist, who can make business, prescribe, dispense, get up saleable Medicinal and other Specialities, gradually improve shop, and take charge if required; salary, 25s. and half share of profits over 65s.; £1,000 to back if required; from 45 to £10 a week should be earned by said Assistant. 193/18, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.



**JUNIOR**, indoors, about 22, for brisk cash business; liberal salary to suitable hand. Apply, stating full particulars, to J. H. Lewis, 22 and 24 Great Portland Street, W.

**ASSISTANT**, outdoors (about 24); one who can Prescribe and Extract Teeth preferred; good references indispensable. Send full particulars, with age, height, experience, salary required, and photo (to be returned), to C. D. Hart, 7 Saffergate, Drury. No Sunday duty.

**WANTED**, Indoor Assistant for Mixed business; one with a good knowledge of Dispensing and capable of taking charge of a branch. Apply, stating age, experience, and reference from last situation, and enclosing photo if convenient, to J. Day, Chemist, Seville Town, Dawsbury.

**WANTED**, to Manage a small but select Branch (outdoors), hours 8 till 8, Saturdays 10, part of one Sunday on in three, a gentleman accustomed to good-class modern Pharmacy and Dispensing, aged about 23 years. Apply, with carte, salary required, &c., to G. Woolley, Chemist, Leeds'er.

**WANTED**, at once, pushing and trustworthy Junior, for General, Retail, and Dispensing, with Paint and Colour business; abstainer preferred; hours 8 to 9, Fridays 8 to 10, Saturdays 8 to 10.30; salary 30s. per week (outdoors). State references, age, &c., to J. A. Melton, Chemist, Morley, Leeds.

**LEEDS**.—Junior Assistant wanted, with 2 or 3 years' experience after apprenticeship; two others kept; must have good address, and able to furnish satisfactory references. State age, height, and salary required, either in or outdoors. Send photo, which will be returned. Apply, Reinhardt & Sons, 76 Briggate.

**WANTED**, an experienced Assistant for the country; one with a good general knowledge of the business; liberal terms offered to a capable man seeking a permanency. Apply, stating full particulars, salary required, and enclose carte, to W. L. Messrs. Maw, Son & Thompson, 11 Aldersgate Street, London, E.C.

**WANTED**, immediately, an Assistant who has had 6 or 7 years' experience in good-class business, and who is a rapid and accurate Dispenser; Minor qualification; state age, height, experience, and salary required; also enclose photo (to be returned). H. C. Parkes, The Church Road Pharmacy, Weston-Super-Mare.

**EARLY** in June; a qualified Assistant, about 23, to take charge of a Light Retail branch; indoors; abstainer; must be good Salesman, competent and trustworthy; knowledge of Photographic Dealers' Business an advantage, but not necessary. Give full particulars to J. T. Birkbeck, Photographic and Dispensing Chemist, Bailgate, Lincoln.

**WANTED**, a qualified Indoor Assistant to manage a Branch in a first-class suburb of London; with a view to purchase preferred; one who has some knowledge of Dentistry, or can extract teeth, would have receipts from same as perquisites. Address, with full particulars, "Suburb," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WHOLESALE**.—Second Warehouseman in a large Drug and Patent House; one able to take an occasional day's travelling preferred, and well acquainted with prices and the trade generally; good prospect for the right man; also a Clerk accustomed to bought ledger work of a wholesale drug house. X, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

**IMMEDIATELY**, as Junior or Improver; 3 years' experience. Witton, Dudley.

**AS** Manager or Dispenser; married; 32; Minor. M., 45 High Street, Brompton, Kent.

**EVENING** Employment; in or near London; 24. "Preliminary," 96 Fyde Street, Boston.

**ASSISTANT**; 22; 6 years' experience; Major; height 6 feet. Apply, R. Dalton, Wilmslow.

**JUNIOR**; Wholesale or Retail; good reference. Apply, 87 Liverpool Road, Islington, London.

**MANAGER** or Assistant; experienced; qualified. A. B., Mr. Thorue, 4A Camden Road, N.W.

**M. R. NICHOLS**, Locum-Tenens; 20 years' experience; Minor qualification. Arragon Road, East Ham, E.

**JUNIOR**; 21 years; 6 feet; 4 years' experience; disengaged; outdoors preferred. A. B., 12 Norfolk Buildings, Bath.

**JUNIOR**; 18½; outdoors; height 5 feet 8 inches; 4 years' experience; photo; disengaged. Jones, 24 Rappart Road, Seacombe.

**SITUATION** by a Young Man; thoroughly competent in Patents and Sundries; undeniable references. C. W., 7 Pickard Street, E.C.

**WANTED**, evening employment or private coaching; qualified; reference T. Martiu, Esq. A. Brunyce, 77 Welbeck Street, W.

**ASSISTANT**; disengaged; fully experienced; good references; unqualified; abstainer. "Chemists," 12 Chapel Street, Uxbridge.

**ASSISTANT**, good experience and reference, wants situation; Wholesale or Retail; used to Storos. M., 70 Ferndale Road, Clapham.

**ASSISTANT**; part time; South coast; 8 years' London experience; Minor qualification; good references. Smith, 2 Cornwallis Terrace, Hastings.

**WHOLESALE**.—Warehouseman or other responsible position; good experience; London or provinces. "Wrekin," 15 Elmdale Road, Lavender Hill, W.

**LOCUM-TENENS** or Manager; London and country experience; 37; single. "Beta," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**MANAGER**, Assistant, or Dispenser; at liberty. Powell, Rhode Heath, Stoke-on-Trent.

**TRAVELLER** open for further commissions. Address, "Agent," 107 Leonard Road, Birmingham.

**LOCUM-TENENS**; aged 24; qualified; disengaged; Extractor. 50 Seymour Street, St. John's, S.E.

**TEMPORARY**; qualified; best experience; disengaged 16th. T., Perks & Llewellyn, Hitchin, Herts.

**LOCUM-TENENS**; disengaged; qualified; good reference. "Eucalypt," 32 Laurel Grove, Penge.

**JUNIOR** or Improver; age 19; height 5 ft. 7 in.; four years' experience. Comrie, Lorne Villa, Crief.

**PART-TIME**, near Wills' preferred; good Dispenser and Tooth-extractor. R., 49 Susan's Road, Eastbourne.

**DISPENSER** to Surgeon; experienced; good references. Vasey, Hilda's Cottages, Church Street, Whithy.

**AGED** 29; experienced; Manager or Assistant. "Extractor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**NORTH MIDLANDS**.—As Branch Manager; good Dispenser, Prescriber, and Tooth-extractor; 27; married. "B," 25 Berwick Road, Walthamstow.

**To** Widows and Trustees.—Experienced Manager, where a good-class business is done; in or out doors; middle-aged; registered. G. Ramsden, Newport, Salop.

**AS** Warehouseman or Light Porter; can make preparations, put up stock, &c., or in Wholesale house; 7 years' experience. E., 6 Guilford Street, Brighton.

**DISPENSER**, age 25, wishes evening engagement; used to Prescribing and Retail; highest references. Address, W. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**LOCUM-TENENS** or Manager; aged 29; Minor qualification; London and country experience; highest references. T. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**TRAVELLER** desires re-engagement; connection, Eastern Counties, Midlands, South Coast, with mineral-water makers, manufacturing confectioners, &c. X., 10 Stracey Road, Forest Gate, E.

**MANAGER**; aged 38; single; qualified; varied experience; good Prescriber; suburbs or provinces preferred. "Associate," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WHOLESALE**; Wet or Dry Counter experience (1 year Wholesale, 6½ years Retail); willing to 2 or 3 years' engagement; Edinburgh preferred; good references. H. B. Wyllie, 9 Fowler Terrace, Edinburgh.

**DISENGAGED**; Locum-Tenens or otherwise; young man understands high-class Pharmacy, Agricultural business, and Extractor of Teeth, also Prescribing; good credentials; failed in Minor; a general all-round man. Address, New King Street, Bath.

**To** Wholesale and Manufacturing Chemists and Druggists.—Chemist relinquishing partnership desires situation either in Counting-house, Warehouse, or as Traveller; aged 44; 11 years' experience in Wholesale. B., 9 Florence Street, Upper Street, Islington, N.

**MANAGER** or Senior in high-class Business; one neglected, in good position requiring working up, not objected to; height 5 ft. 5 in.; over 20 years' Town and Country experience; good address; successful Prescriber; Minor qualification; good salary; permanency. "Alpha," Post Office, Ardleau, Oswestry.

## MISCELLANEOUS.

**A** LOT of Will's Hard Enamel to be Sold at a great reduction, in one lot, or in part lots; no reasonable offer refused. Address, P.O. Box 599, Manchester.

**ABOUT** 40 gallons White Newfoundland Cod-liver Oil; price 2s. 6d. per gallon in Leeds; samples on application. Benjn. R. Vickers & Sons, Oil Importers, Leeds.

**FOR** Sale, twenty Ordinary Shares in Barclay & Sons (Limited), £3 paid, for £2 15s. per share; average dividend for last 3 years, over 7 per cent. Apply to "Chemists," Thanet House, Broad Street, Canterbury.

**To** Brokers, &c.—Messrs. Armhrecht, Nelson & Co., 2 Duke Street, are desirous of opening negotiations for the immediate supply of bright green (prime condition) Cocoa Leaves, by the ton; also prime conditioned Kola Nuts.

### PESTLES AND MORTARS.

**A** VERY cheap lot to be disposed of, first-rate make, acid-proof, slightly defective in colour; also a lot of Photographic Trays at half-price. Particulars on application, Grimwade Brothers, Winton Pottery, Hanley.

**SOAP-WORKS** (Freehold).—Ratcliff Highway.—To be Sold, or Let on Lease, excellent modern Plant, equal to production of 40 tons per week, ready for immediate operation. For particulars and orders to view, apply to Messrs. J. O. Chadwick & Son, Chartered Accountants, 95 Finsbury Pavement, E.C.; or Messrs. Blunt & Lawford, Solicitors, 95 Gresham Street, E.C.

**ONE** of the largest German Manufacturers of Aniline Colours seeks an energetic Officer, at a high salary, to regularly visit the English Buyers in company with their various English agents; must be thoroughly experienced in this trade and be fully conversant with the English language. Only gentlemen of capacity will please apply, stating references, to O. G. 782, care of Hnasenstein & Vogler A.-G., Cologne.



they could not more effectually make their meetings uninteresting to their constituents. The business was transacted with the aid of three voices, apart from the President's and Vice-President's although eighteen members were present. The only matters which call for comment are those which do not occur every month, and, included amongst them, we may note that the annual subscriptions have enabled the treasurer to get ahead of the calls upon his purse, which is so far satisfactory. Honour was paid to a triumvirate—Mr. T. S. Dymond, the Research Laboratory assistant, being repaid for his services in that capacity and for other co-operation with Professor Dunstan by receiving the appointment of assistant-lecturer in chemistry, at present without salary; Brigade-Surgeon Aitcheson, the distinguished naturalist who accompanied the Afghan Delimitation Commission, has his services to pharmacognosy recognised by his election as an honorary member of the Society; Dr. Hesse, whose researches in regard to the cinchona alkaloids, as well as other organic substances, have placed him in the front rank of pharmaceutical investigators, is to receive the Hanbury medal, the highest distinction which British Pharmacy can pay to those who may be regarded as followers of the footsteps of the late Daniel Hanbury.

The Executive of the North British Branch submitted a satisfactory report of its year's labours. The branch appears to give no trouble, and its local habitation is utilised more and more, but the evening meetings are not so successful as they might be. In that connection Mr. Evans hinted to the Council that some day he will bring forward a scheme for supplying pabulum for evening meetings in the provinces. It is a peripatetic lecturer he has in view. He gives no details, but the Council in the meantime supplies a laugh—which is about all the financial condition of the Society allows them to do at present. That condition is revealed in all its bareness in the financial statement, which, with the annual report, was considered at the termination of public business.

The results shown by the financial statement are such as disciples of the late Mr. Cocker would have expected. The Society is beginning to experience the effects of the lavish expenditure on unremunerative objects of the present reign. Income from investments is diminishing, while expenditure on the recently erected buildings necessarily increases. The consequence is that, instead of the surpluses of between 1,000*l.* and 2,000*l.* which were normal ten years ago, there is now recorded a deficit of similar dimensions. The Society's income during the year amounted to 16,014*l.* 7*s.* 4*d.*, a sum which should enable a trade or learned society to keep up a very respectable appearance. The expenditure, deducting the amount spent on new premises, amounted in 1890 to 17,193*l.* 18*s.* 4*d.*, an excess over income of 1,179*l.* 11*s.* In the details a few rather exceptional expenses might be pointed out, but in large establishments exceptional indulgences tend to become chronic, or at least to breed successors. Anyway the figures show that our sanguine friends who retain the faith that the Pharmaceutical Society will one day do some great things for them in the way of trade protection, provincial education, or legal activity, may as well bury their anticipation in this direction, and substitute enthusiasm for research in the place of their former hopes as soon as they can do so conveniently and decently.

The annual report is the work of the President. It is superlatively prosaic. When Mr. Carteighe takes up his pen he loses the piquancy which his tongue imparts to his utterance. The slight roseate tinge which the first paragraph of the report diffuses over the Society's finances does not hide the blemishes, and only brings the deficit into startling relief. The report is incorrect in saying that there was an increase

in subscriptions during the year: there was a small decrease. Examination-fees show an increase of 454*l.* The report makes the most of Dr. Thomas Stevenson's report on last year's examinations, urging the better training of apprentices, and taking the Government visitor's remarks as a justification of the educational proposals of the Council. Reference is also made to the amended by-laws which the Council has finally passed, and which will come before the members for approval or otherwise at a special general meeting on May 27. The Society has seldom had an annual report of so humdrum a character as the present one, and there is so much behind it which it would be better should be brought clearly before the members, that it will not be surprising if at the annual meeting the motion for its adoption leads to a protracted discussion.

### THE SYPHON TRADE.

OUR correspondence shows us that with the possible approach of summer—after the experience of the past six months we do not care to prophesy its advent too confidently—chemists and aerated-water dealers are beginning to trouble themselves with the perpetually recurring syphon spectre. We have answered several legal queries lately from retailers who seem to be pretty deeply involved in syphon debts to the manufacturers who supply them, and who, it appears, leave the syphons on loan. One gentleman who inquired was disposing of his business; the syphon owners thought the moment a suitable one to suggest that the syphon account should be squared; and our correspondent wanted to know whether he could be compelled to pay for such as were missing. There is, apparently, no legal escape from the responsibility of accounting for articles admitted to have been borrowed; but we should not be sorry to know that houses who, by recklessly supplying their syphons wholesale, have encouraged a similar looseness among retailers, have themselves to suffer a part of the consequences.

Another correspondent says he does a considerable business in syphons, selling some 3,000 annually. He buys from makers who charge for the waters 50 to 100 per cent. above the prices he could get them for elsewhere, but he hesitates to change his source of supply because of the heavy claim which he thinks they might make on him for lost syphons. Last year, he says, he was "about 100 out."

A loose system of lending syphons seems to prevail in a large number of businesses to the injury of everybody. There is no reason why this should be so. The public do not expect to get a syphon given with the aerated water, and cannot reasonably object to be asked to return these vessels as they become empty. But if the vendor does not look after his property it is very certain that a number of careless customers, who leave such matters to their servants, will let the syphons drift to the bottle-dealer, or, in fragments, to the dustheap. Some chemists make a charge of 2*s.* or 2*s.* 6*d.* on every syphon as it leaves them. This practice secures safety, but it no doubt checks trade. All that is necessary, as a rule, is a strict system of account and a periodical examination of the accounts. A sort of *pro-forma* invoice, on which conditions of loan should be printed, might be sent with every syphon or series of syphons sent out. This might state the price, and intimate, if said syphon were not returned within, say, two weeks, the amount would be debited to the customer in the ledger. A space for receipt-form might be left on the invoice so as to complete the business when the syphons should come back. If this *pro-forma* invoice could be detachable from a book with counter-foils, the record of syphons out would be always readily available. Some chemists recommend numbering the



syphons and stating the numbers on the invoices: this plan may be adopted with advantage.

Mr. J. E. Crofts, of 57 Grange Road West, Birkenhead, sends us a specimen syphon register and book of receipt forms which he has adopted with success, and which he offers to other dealers. It is a little more complicated than the system we have recommended above, and has the disadvantage that it does not give the customer formal printed notice that he will be held responsible for the syphons lent to him. Mr. Crofts, however, gives us, as proof of the excellence of his method, the fact that he has not lost a single syphon, except by breakage, since he adopted it. Previously he lost about two dozen per annum.

The essential point is that the vendors should make it clearly understood that the syphons are to be returned or paid for within a reasonable time, and should look closely after them. Unless he does this he will certainly lose a percentage of his syphons, and he can easily calculate what that percentage must be to convert his business in this branch into a loss.

### THE SPIRITS COMMITTEE.

THE labours of the Select Committee which has been inquiring into the desirability of bonding spirits for a prescribed period were concluded last week, and a report drawn up by Sir Lyon Playfair, the chairman, has been issued. We have reported from time to time the proceedings of the Committee so far as they were of technical interest, and have also published the evidence submitted in regard to the sale and consumption of ether and methylated spirit in certain districts in Ireland. It will be unnecessary, therefore, to refer to the evidence generally, and we confine our attention to the Committee's report.

The quantity of spirits produced in or imported into the United Kingdom during the year ending March 31, 1890, was 40,900,000 proof gallons. Of this, 1,500,000 gallons are put down as being used for methylation and 1,000,000 gallons for medicinal purposes and tinctures. It is interesting to note in regard to the consumption of spirits generally that there has been a marked decrease per head of population during the past forty years. In 1852 the figure was 1.095 gallon; by 1862 the amount had fallen to .821 gallon, but there was a rise to 1.128 gallon in 1872; since then that figure has not been touched, the quantity being below the unit up to last year, when the increase in consumption of British spirits amounted to over 2,000,000 gallons, the total consumption being 29,410,431 gallons. The returns for foreign and colonial spirits imported in 1890 show that 10,573,729 gallons were entered, or more than double the quantity imported in 1852. The imports have been steadily increasing since, owing partly to increased consumption of rum and brandy, but mainly to the imports of what is known as German spirit, 3,199,470 gallons of which passed through the Customs last year. The influence of this on the returns can be traced back to 1872, when there was a jump of about 4,000,000 gallons over the previous decade. The Committee have not succeeded in tracing the destination of this spirit. It is not allowed to be blended with British spirits in bond, only a small quantity is used for methylation, and "it is believed to be used for blending when duty paid, but not to any great extent"; so that we are forced to the conclusion that it passes into the hands of the rectifiers, and doubtless a share of it will come through them into the hands of druggists. It is assuring, therefore, to have it on the authority of the Committee that this foreign spirit is of "the same, or even superior, alcoholic purity to the patent spirits produced in this country."

On the question of compulsory bonding the Committee are for non-interference with present regulations. They have discovered no evidence of detriment to public health, by the increased use of new patent-still spirits blended with pot-still spirits. Science has failed to show that compulsion would be a benefit, and the inducement is all in favour of bonding, as spirit so kept yields the best profit; but it would be a decided disadvantage, and injury to compel rectified spirit to be bonded. In regard to the chemical evidence all that the Committee have extracted from it is

That the mellowing of spirits by age is due to minute quantities of certain very imperfectly known bodies affecting the taste and smell, and which are present even in much smaller amount than the higher alcohols and ethers, which are found practically to the same extent in old and new spirits.

This conclusion is arrived at in the face of Mr. A. H. Allen's evidence, which was practically to the effect recorded in our report of Monday's meeting of the London section of the Society of Chemical Industry. The committee appears to share the view attributed to Dr. Bell, that

The higher alcohols and ethers do not materially alter or lessen by age, though the empyreumatic bodies, including furfural, undergo a change, and this may account for the difference in flavour of old and new spirits.

They do not attempt to reconcile the conflicting views of these eminent analysts, nor do we.

The physiological evidence of Dr. Pavy and Dr. Lauder Brunton was not very satisfactory. Both gentlemen were of opinion that matured whisky is a better drink than the unmatured; but they could adduce nothing to show that the unmatured article is injurious.

In regard to the consumption of ether, the report states that

It will be necessary to watch closely the further effect of scheduling ether as a poison, and it is in the interest of the Inland Revenue to do so, as this intoxicant may be and is made from methylated alcohol, and thus escapes paying the duty with which other intoxicating beverages are charged. For the present your Committee do not think that other measures are necessary, unless it may be considered desirable to obtain powers for search of grocers' shops, and of itinerant vendors who sell ether.

It is somewhat remarkable that the inquiry into the consumption of methylated spirit as a beverage has not extended to Scotland, where this practice has led to convictions and the imposition of heavy fines on retailers, as well as the prohibition of the sale of the spirit on Sundays. The evidence before the Committee simply shows that the spirit is used to a "considerable and increasing extent in the Braid district [Ireland], covering an area of five to eight miles, and in Ballymena three chemists and druggists sold last year 714 gallons, the major part of which is supposed to have been taken as an intoxicant." This extremely limited inquiry scarcely justifies the drastic measures proposed for the regulation of the sale of methylated spirit. It must be borne in mind that the total consumption of methylated spirit is 1,500,000 gallons a year. How much of that went into the Braid district last year? or how much do the Inland Revenue authorities suppose is consumed as a beverage? The report gives us no indication, but it concludes the section on this subject by stating:—

Efforts were made by the Inland Revenue to limit the quantity sold to retailers in this district to one quart, but the Pharmaceutical Society opposed the restriction, and it was taken out of a Bill before the House of Commons. Still, under the Budget Act of last Session, the Inland Revenue might order a register to be kept of sales of methylated spirit retailed in any district, and they might modify the



composition of methylated spirit used for retail purposes, so as to make it more offensive as a beverage.

Last week the Chancellor of the Exchequer gave some indication that this recommendation is to be acted upon, so that it seems likely that the ultimate state of the retailer of methylated spirit may be worse than the condition proposed, and which the Pharmaceutical Society successfully opposed last year.

Altogether the Committee's report is exceedingly *non possumus*, even in the application of the provisions of the Sale of Food and Drugs Act and the Merchandise Marks Act to whiskies, brandies, rums, &c., which are known to be flavoured with spirit. The conclusion arrived at is

That a standard of purity cannot be applied to the spirits made in this country, or to those imported from abroad, for, although some very impure spirits are imported, they seem to be all accounted for by their use as methylated spirit, and are not employed as beverages.

The report seems to show that science, which, it must be admitted, spoke with an uncertain voice, has had but little weight with the Committee, but that "the trade," which is against interference and further restrictions, is to be obeyed.

### TRADE-MARK LAW.

MR. JOSEPH SEYMOUR SALAMAN has sufficiently excused his invasion of the realm of authorship. He has written a concise little book on "Trade Marks" (published by Messrs. Kegan Paul, Trench, Trübner & Co.), designed not so much for the use of lawyers as of commercial men with trade-marks which they wish to protect. Mr. Salaman has taken an effective part in the initiation and subsequent amendment of the Acts relating to trade-marks; and under them he has been, he tells us in his preface, professionally concerned in obtaining the registration of some ten thousand marks, and on the winning side in a hundred legal contests respecting these. We do not doubt he has also acquired valuable experience in some cases where his clients have come out second best from the judicial mill, though he does not mention these occasions. His acquaintance with the subject may be therefore deemed to be fairly complete, and his book would have had the same character if he had provided one additional chapter instructing applicants how to conduct their own trade-mark registrations. This did not perhaps form part of Mr. Salaman's plan; and if the indication of the pitfalls which the varying judicial decisions alluded to provide for the unwary should convey the lesson that the employment of a competent agent is essential to the security of a trade-mark, this conclusion will not perhaps be far removed from that which the author would have been disposed to add to his treatise as a moral if such an addition were expected nowadays.

Mr. Salaman cannot be expected to write in other than friendly terms of the branch of the law with which he deals. But the collection of illustrative cases and judgments which he so admirably condenses and quotes in his treatise suggests the question to the reader whether the registration of trade-marks which the Legislature first consented to provide in 1875 has brought a balance of advantage to anyone except lawyers. It is quite true, as Mr. Salaman says, that for many years the commercial community had clamoured for such a provision, and, notwithstanding several subsequent amending Acts, there is no evidence that they are dissatisfied with their toy even now. But what have they gained? Several new opportunities for litigation are about the sum total—as far as we can see. Before 1875 a trader whose trade-mark rights were being infringed could go to a

court and get redress if it was found that he had a grievance. The intention of the Act was that this process should be simplified. The complainant was simply to produce his certificate of registration, and, in our innocence twenty years ago, we seem to have imagined that cases would then have been settled there and then. In practice the same old points which had to be fought out in the old times are contested now, though a few preliminary complications are introduced. The defendant either disputes the charge of infringement or denies the validity of his opponent's trade-mark. He moves for its removal from the register, and hence arises not merely the simple questions of priority of use and colourable imitation, but a number of technical points involved in the interpretation of the statutory terms. Moreover, before 1875 people did not go to law until they had, or thought they had, a grievance against rivals. Under the Acts a large number of suits have been brought against the Registrar in respect of marks which no one has thought of imitating, and which perhaps never would have been imitated.

Thanks to the litigious tendency of a number of firms, a settled body of trade-mark law is gradually being evolved; but Mr. Salaman is surely a little over-sanguine in his opinion that "it may now be said that there are few points which can arise in regard to trade-mark law and practice which have not been dealt with by authority." But even if general principles interpreting all the difficult points of the statutes have been laid down, their application to particular cases will always be capable of indefinite argument.

The most useful form of trade-mark to get protection for is, we should say, a simple invented word or words; but it is in regard to such marks that a large amount of litigation has arisen. At various times a right of property has been assumed in the titles "fruit salt," "pain-killer," "hop hitters." These have all had to go, though for the first of them, standing alone, registration had been actually granted. "Electric" applied to velvet, "Alpine" to embroidery, "gem" to an air-gun, "valvoline" to an oil have been declared invalid, because they were considered to be descriptive. Geographical names are disallowed, the leading case being the one in which Messrs. Van Duzer claimed registration for the title "Melrose" as applied to a hair-restorer. The generally-recognised original proprietors of Harvey's Sauce, Worcester's Sauce, and Reading Sauce have curiously all lost any exclusive rights they might have possessed in those titles by neglecting to enforce them with proper diligence. The owners of Yorkshire Relish have not risked this danger.

A very useful chapter is appended to Mr. Salaman's exposition of the law as it is interpreted in this country, in which the possibilities of registration of British trade-marks in the colonies and in foreign countries are briefly stated. Such registration is perhaps the most valuable outcome of the home legislation, as without it the chances of maintaining trade-mark rights abroad would be, as they were formerly almost hopeless. Those marks which British subjects register in foreign countries are generally marks applied to goods which are in constant demand, and are therefore of substantial value; a vast number of the marks registered at home are applied to goods which have no general sale, and which nobody could have any interest in imitating.

MESSRS. CONDY & MITCHELL (LIMITED) have just obtained a second injunction in the United States against a person who had used the designation "Condy's Fluid" for a fluid not manufactured by the said Condy & Mitchell Limited. Five similar injunctions have been granted in his country.



## COMMENTARY.

**MEDICINE LICENCES.**—Several chemists have written to us asking how the new Inland Revenue regulations, whereby they are required to take out a separate licence for each establishment they occupy, affect dealers who sell such goods in carts, chariots, or on foot. We have made inquiries at Somerset House, and find that the law is administered with strict equality. Travelling vendors of medicines have to take a separate licence for every place they occupy, and the Board of Inland Revenue now refuse to grant licences for or to sanction the sale of patent medicines from a cart in the street, or by means of agents going from house to house.

**THE MEDICAL PRELIMINARY EXAMINATION.**—Mainly in consequence of the resolution of the General Medical Council to impose a curriculum of five years' duration upon medical students, the principal examining bodies in London have recently had under consideration certain schemes of improved education and examination, which will bring the policy of the bodies more in line with the universities and the demands of the General Medical Council. The *Lancet* does not consider the proposals of the colleges altogether satisfactory, and advocates an entire reform of the Preliminary examination, suggesting that mechanics should be placed along with the preliminary sciences, to which—viz., physics, mechanics, chemistry, and biology—a year should be devoted, and in which an examination should be passed before the student is allowed to enter upon his medical studies. The first examination at present includes elementary human anatomy and pharmacy; but, says our contemporary, these “have no proper place as subjects for a first examination in a well-drawn scheme. Indeed, we would ask how a proper knowledge of ‘pharmacy’ is to be tested except by the Pharmaceutical Society or by a practising druggist. Therapeutics and the actions and doses of remedies, and the manner of their prescription and combination, can only be among the later acquirements: and surely the mere dispensing of prescriptions cannot be meant under the term ‘pharmacy.’ If so, it is extremely unfortunate that this should have to be passed at the same time as the elementary sciences.” Here is a suggestion which might be worked up into something good for pharmacy (we mean the craft) by a sound-headed enthusiast.

**COPIES OF PRESCRIPTIONS.**—We notice that the *Lancet* shares “The Art of Dispensing” view in regard to giving copies of prescriptions. A correspondent thirty years ago received from a physician a prescription of a powder for the relief of “rheumatic pains,” and on several occasions, notably when leaving for a sojourn in India, he obtained copies of the prescription from the chemist who dispensed it. Recently he asked for a copy of the prescription, which the chemist declined without the prescriber's sanction, so long a period having elapsed since it was prescribed. The physician being dead, what is the customer to do? “We are of opinion,” says the *Lancet*, “that if the chemist takes the trouble to register the prescriptions sent to him, it is quite within his right to decline to furnish copies of his entry, even at the request of the person for whom the medicine is prescribed. No chemist is bound to keep such a register (except in the case of prescriptions containing poisons), and he would always be at liberty to destroy it at any time. No doubt it is to his advantage to file prescriptions, and no doubt also he would seldom refuse copies to the patient or the prescriber as a matter of courtesy. The physician certainly parted with his right in the prescription to the patient. We cannot blame the chemist for adhering

to the rule of his establishment, which has a good deal to be said for it, from the point of view of the patient as well as from that of the medical man. There are occasions, indeed, when a chemist would be fully justified in declining, not only to furnish a copy of a prescription, but even to dispense it a second time without a reference to the prescriber.”

**THE ALMOST OMNISCIENT JOURNALIST.**—He is within his legitimate province when he teaches emperors how to govern, generals how to fight, bishops how to preach, and judges how to decide intricate points of law. But there is one little vulnerable point in his armour of omniscience: he does not understand a prescription. One of the news agencies seems to have got hold of our article on influenza last week, and a summary of it, duly acknowledging THE CHEMIST AND DRUGGIST, has been printed in a number of leading provincial newspapers. We gave a formula for what we called “a safe family mixture” as follows:—

Tr. aconiti .. .. .	3j.
Spt. ætheris nitrosi .. .. .	3j.
Liq. ammon. acet. .. .. .	3ij.
Glycerini .. .. .	3j.
Aque ad .. .. .	3vij.

M.

But the journals in question reproduced it thus:—

Tr. aconiti .. .. .	3j.
Spt. ætheris nitrosi .. .. .	3j.
Liq. ammon. acet. .. .. .	3ij.
Glycerini .. .. .	3j.
Aque ad .. .. .	3vij.

Luckily the recipe was in Latin, so that the intervention of a competent dispenser will almost certainly be necessary, and he will be pretty sure to detect the misprint, which multiplies the strength of the aconite by eight. Our Birmingham correspondent tells us that the editors of two leading dailies of that city, who had both printed the formula with its incorrect quantities, were pretty well riddled the next day with explanations of the difference between 3 and 3 from medical men and pharmacists. A Manchester paper which fell into the same error has been corrected by a number of correspondents, one of whom sent an English translation of the prescription.

**THE CHEMIST AS HERO.**—Chemists and druggists have not figured very prominently in works of romance, nor when they have been introduced has it always been in a complimentary manner. The apothecary in “Romeo and Juliet” and the chemist-juryman in “Pickwick” are the most famous pharmaceutical characters in fiction, and we have no reason to be very proud of either. In the *Fortnightly Review* for May, a little romance appears, by Frederick Wedmore, entitled “A Chemist in the Suburbs.” The hero, Richard Pelse, a chemist, formerly of Orchard Street, Portman Square, and subsequently of Islington, is represented as cultured, delicate, and refined. He even collected first editions and specimens of china. “To see the clear-cut head, against its background of dry drug jars and Latin-labelled drawers—‘Alumens’; ‘Flor: Sul’; ‘Pot: Bitar’; ‘Cap: Papav’”—was sufficient to satisfy the customer “that he was individual.” We hope his Latin was better than Mr. Wedmore's. This gentleman had worked his way up from the position of a shop-boy to become partner, and subsequently sole proprietor of the business in Orchard Street. He “had acquired from America the rights to an exclusive sale of a particular preparation of the hypophosphites, and the society doctors—the men who had charge of Royalty, and of over-tasked celebrities, of smart people, and of the very rich—had taken to recommend it.” Once when he was taking a little holiday, and was staying at Aix-les-Bains, he



met at the hotel Colonel Image, his wife, and daughter Beatrice. Richard went spoons on Beatrice, and she took a kindly interest in him. The trouble was, however, that she was one of the upper classes, while he was a shop-keeper—"might have sold her sponges, nail-brushes, eau de Cologne." She called on him once afterwards in London, had tea with him, and played the piano to him. Richard never got over that visit; Beatrice did. She married some time after, and Richard sold his business in Orchard Street, and took another near the Angel. He took to his collecting again, was popular as a chemist, seems to have gone in for counter-prescribing on an extensive scale, and at last died of paralysis. In his coat-pocket was found the photograph of Beatrice, which she had given him at Aix-les-Bains. The plot of this story is decidedly "thin"; we like our fiction more "buggy"; but that is a matter of individual taste. There seems to be a demand at present for morbid little sketches of the character of Mr. Wedmore's tale. Whether the snobbishness which oozes through this story is an additional attraction to the readers of the *Fortnightly*, or not, we cannot decide.

**LENS-TESTING AT KEW.**—Our young contemporary the *Optician* has been to Kew to see how they test lenses there. The new work only began on May 1, but the preliminary arrangements were seen, and it was discovered that instruments will be tested at the beginning and middle of every month, so that they may be taken in batches, and be done by one operator. The points upon which an opinion will be given are:—(1) "Effective aperture," determined by placing a blackened cardboard with a minute aperture in it between the front combination of the lens and a small flame in a darkened chamber. The illuminated disc which is projected on the anterior lens is then carefully measured. (2) "Equivalent focus" of the lens, determined by means of the ordinary rule governing conjugate foci. (3) "Extreme angle of field," determined by means of a collimator in position. The lens to be tested is revolved upon its axis, and a pencil tracing taken up to the point on one side of the field at which the practical illumination ceases. The same course is then followed on the other side of the field. The angle thus produced by the pencil line is then read off by means of a protractor. (4) "Largest field properly illuminated," calculated by the aid of logarithm tables. The tangent of half the angle included is read off and the diameter of the circle decided by the tables. (5) "Determining of the number of external reflecting surfaces," effected by holding a flame in front of the lens, and looking obliquely through the back combination. (6) "Difference in focal length" (visual and chemical), is ascertained visually. The spectroscope and prism are used, the operator focussing beforehand for white light on a scale, and noting the position of the screen, after which the spectroscope is brought into play, and the focus for the red end of the spectrum measured. The same process is then pursued for the violet rays. (7) "Flare spot," is tested by obtaining a negative. (8) "Centering in mount," ascertained by focussing with the aid of a micrometer, an intersection of hair lines on the screen, and revolving the lens in its own mount gradually for a whole turn. (9) "Defining power," is tested photographically, fixing arbitrarily the power both at the centre and at as many degrees from the centre as the angle included will allow. The important question of (10) "transparency of glass" is decided by imposing each combination of the lens separately upon a piece of standard sensitive paper in the full light and noting the darkening from the disc of light transmitted. The shade values are ascertained by means of the photometer test. An ingenious test for (11) "optical distortion" is carried out in the following manner:—A perfect

circle is drawn on a ground plan screen. Another circle of the same diameter is focussed at such a distance as to coincide as nearly as possible with the former circle. If the projected image be elliptical, distortion is clearly apparent, and the amount may be determined by the difference in the diameters of the ellipse and the circle.



AND

## Literary Notes.

*The Medical Annual and Practitioners' Index.* 1891.  
Bristol: John Wright & Co. 6s. 6d.

THIS annual has now reached the ninth year of publication. Externally the volume for 1891 differs in no respect from the last one, but internally there is a great advance both in the treatment of subjects and the arrangement of matter, while for the first time coloured plates and diagrams are used to illustrate the text. Altogether illustrations are more freely used.

The fact may be recalled that this annual, in addition to giving prominence to new remedies and new treatment, always has a fresh and leading feature every year. This year "Special Diagnoses" is the feature, Dr. E. Lane Fox dealing with the hand, and Dr. Frank J. Wethered with the character of the sputum. There are other specially contributed articles. At the end there is a good supply of miscellaneous information, including a directory of trades related to medicine, "books of the year" (from which Proctor's "Pharmaceutical Testing" is omitted!), a good deal about sanitation and lunacy, as well as other references which cannot fail to be useful and time-saving to practitioners. The index is much superior to any that have been given before. There are 3,000 references the index tells us, and we can take that as correct, for Dr. Percy Wilde is the editor, and he is to be congratulated on the general thoroughness of the work.

*Lectures on Diabetes.* By Robert Saundby, M.D. Bristol: J. Wright & Co.

THE thanks of the medical world are due to Dr. Saundby for his valuable contribution to the literature relating to the subject of diabetes. The letterpress is written in a flowing, readable style, and the facts are stated in a terse and succinct manner, without the superabundant "padding" so common in works of this kind.

It would appear that diabetes is greatly on the increase both in this country and elsewhere. The death-rate from that disease is higher in Malta than in any other country. The rate per 100,000 in England is stated to be 5.8, in Paris 9.6, and in Malta 13.1. It would be interesting to know the rate for Belgium, which the author omits from his table of comparisons (page 21). It is, we believe, a fact that, as far as density of population is concerned, Malta is the most thickly inhabited country in Europe, while Belgium comes next. Might it not be possible that, as overcrowding, with its attendant misery, worry, poverty, and struggle for existence, takes place, so in proportion would diabetes occur?

With regard to treatment, Dr. Saundby places most reliance on careful dieting and opium (gr. j. t.d.s.). He also approves of alkalis, such as salicylate of sodium and alkaline mineral waters, and he adds (page 191) that, if diabetic patients would stay at home and order the waters of their druggist, they would avoid the evil effects of excitement and fatigue which frequently hurry on a fatal termination. Bromide of potassium may, he thinks, be given, in conjunction with opium, combined with a little potassium bicarbonate and some bitter infusion. It allays nervous irritability, and is especially indicated in the case of elderly women. Clemens's solution of arsenite of bromine, Martincau's combination of carbonate of lithium with arseniate of soda, jambul, antipyrin, phosphorus, and several other remedies which have recently been lauded as specifics were, according to his experience, of no use at all.





THE trial of this action for an injunction to restrain the defendant, a

chemist, carrying on business at Preston, Lancashire, from selling as Beecham's pills, pills not of the plaintiffs' manufacture, came on on Friday, May 1, before Mr. Justice Vaughan Williams, sitting in the Queen's Bench, as a Judge of the Chancery Division.

Mr. Kennedy, Q.C., and Mr. Eve appeared for the plaintiffs, and Mr. Walton, Q.C., and Mr. Gatey for the defendant.

Mr. Kennedy, in opening the case, said the plaintiffs were the well-known manufacturers of a patent medicine known as Beecham's pills, and although several issues were raised by the pleadings, the main issue was whether the defendant had or had not sold pills as Beecham's which were not of the plaintiffs' manufacture. The question was one of fact. For reasons of their own, the plaintiffs' agents, towards the end of September and the beginning of October last, went and sent to the defendant's shop for pennyworths of Beecham's pills. These pills were sold usually in boxes; but it was a common practice for chemists to break bulk and sell pennyworths to their poorer customers. In each of the cases to which the attention of the court would be called persons went to the defendant's shop and asked for one pennyworth of Beecham's pills, and they were handed by the defendant, or by his assistant, some pills which were not Beecham's. The learned counsel submitted that the circumstances under which these sales took place were such as to entitle the plaintiffs to an injunction.

The following witnesses were then called:—

Mrs. Sarah Ann Harding, examined by Mr. Eve, said in September, 1890, she was on a visit to Preston. Acting on instructions from Mr. Glover, she went to the defendant's shop, 6 Orchard Street, Preston. She saw the defendant, and asked first for two drachms of bromide of potassium. He asked what witness usually paid for it, and she replied one penny. The defendant said it ought to be twopenny. She then asked for one pennyworth of Beecham's pills.

What did the defendant do or say?—He took the box of pills from a drawer.

Was anything said?—I asked if they were Beecham's pills. He said they were, and I was not to look at the label. The box he said was labelled "Antibilious." I said I did not want the label or the box; I only wanted the pills. When I got outside I banded the box to Mr. Glover. I am well acquainted with the real Beecham's pills.

Could you tell by looking at them whether the pills the defendant gave you were Beecham's pills or not?—Yes.

And were they Beecham's pills?—No. I went to the defendant's shop on the following day, and asked if he sold the old-fashioned cakes of brown Windsor soap? He replied that he did. I afterwards asked for one pennyworth of Beecham's pills. The defendant turned to his assistant and said, "Give this lady a penny box of Beecham's pills." The assistant went to a drawer containing boxes and pills, and gave me a box (produced). The pills in the box are not Beecham's pills.

Cross-examined by Mr. Walton: Mr. Glover is in the employ of Messrs. Beecham. I had arranged to purchase pills and hand them to him. This was the only time I had so assisted Mr. Glover. I live in Bristol, and was on a visit to Preston. I am well acquainted with Beecham's pills. I knew they were sold in boxes. I asked for one pennyworth of pills at Mr. Glover's request. Mr. Fisher did not say to me, "I can sell you a penny box of our own antibilious pills."

And I did not say in reply, "Ob, it doesn't matter; your pills will do." I did not expect to get a pennyworth of Beecham's pills in a box with Beecham's label on it. I did not expect to get them in a box. I sometimes have them supplied to me loose, and sometimes in a box. Mr. Fisher spoke about the label before handing me the box.

Mr. Walton: The label is—"Antibilious Pills. 1 or 2 occasionally. R. Fisher, Chemist." The label seems to indicate that the pills supplied are Fisher's?

Witness: I asked for Beecham's pills.

Will you swear that Mr. Fisher on your second visit said to his assistant, "Give this lady one pennyworth of Beecham's pills"?—Yes. I gave no reason why I wanted the second box. Mr. Fisher on the 27th did not make any further reference to the label. I posted the box of pills to Mr. Glover.

I suppose you knew what your object was in going into the shop?—Yes.

You wanted to entrap Mr. Fisher into selling you his pills for Beecham's?

His Lordship: You have no right to say that. Her object was to ask for Beecham's pills, and see what she would get.

Cross-examination continued: I wrote to Mr. Glover and told him that I had made the second purchase, and that the pills were spurious.

Re-examined: I had never been in Fisher's shop before.

Mr. James Topping, examined, said he was a machinist in the employ of the plaintiff at St. Helens. By Mr. Glover's instructions he went to the defendant's shop and asked for a pennyworth of Beecham's pills. The defendant said nothing, but handed the box produced to him. Gave the box of pills to Mr. Glover, when the box was opened. The pills inside were not Beecham's. Later in the same day went again into the defendant's shop. Mr. Glover was in the shop then. Witness asked the defendant's assistant, loud enough for Mr. Glover to hear him, for a pennyworth of Beecham's pills. The assistant served him. Again handed the box of pills to Mr. Glover, who opened it. The pills were not Beecham's.

Cross-examined by Mr. Gatey: Had been employed on previous occasions by Mr. Glover to go into chemists' shops and purchase pennyworths of Beecham's pills.

Did not the defendant say to you, "There are no penny boxes of Beecham's pills"?—No.

Did he not say he sold his own penny boxes of antibilious pills, and you could have some of them?—No. On the second visit the defendant's assistant made no remark about the pills.

Did you expect to get Beecham's pills?—No. I asked for them, but I was told that the defendant would not supply them.

His Lordship: That was what Mr. Glover had told him before he went into the shop.

Mr. Alfred Milligan, a printer, in the employ of Messrs. Beecham, said on September 30 he went to the defendant's shop in Preston and asked for a pennyworth of pomade. Then asked for a pennyworth of Beecham's pills. The assistant served the pomade and Mr. Fisher served the pills. Gave the box of pills to Mr. Glover, who opened it. The pills were not Beecham's. Later in the day went into the shop again. Mr. Glover was in the shop. Asked Mr. Fisher for a pennyworth of Beecham's pills. The defendant served him the box (produced). The pills were not Beecham's.

Cross-examined by Mr. Gatey: Was employed by Mr. Glover to purchase the pills. Saw that the box was marked "Antibilious." The defendant made no remark when serving the pills.

Mr. William Harrison, examined, said he was boots at an hotel in Preston. At the request of Mr. Glover he went to the defendant's shop on September 30, and asked for a pennyworth of Beecham's pills. The defendant told his assistant to get them out of the drawer. The defendant handed me the box produced. Not a word passed. I gave the box to Mr. Glover. Went again to the defendant's shop on October 1, and asked for a pennyworth of Beecham's pills. The defendant told the assistant to give me a box of antibilious pills. I said, "I want Beecham's pills." The defendant said, "That's all right."

Cross-examined: The assistant behind the counter was a little boy. Did not know whether the pills were Beecham's pills.

Mr. Edward Lane gave similar evidence, with the exception that Mr. Garner was present when he asked for a pennyworth of Beecham's pills.



LIBRARY

Mr. Glover, examined, said: I am a clerk in the employ of Messrs. Beecham. I have been in court and heard the evidence of the foregoing witnesses, and their evidence is true.

Cross-examined: It is a part of my duty to get up evidence for the plaintiffs in these cases. On two occasions I was in the defendant's shop when the witnesses asked for pennyworths of Beecham's pills, and I heard them ask for them. I am certain that Mr. Fisher did not tell the witnesses that Beecham's pills were not sold in penny boxes.

Mr. Andrew Garner, also an employé of Messrs. Beecham, said Lane's evidence was true. In conversation with him the defendant said, "People are fools enough to think that they can get Beecham's pills for one penny per box when they are sold at one shilling per box. When people ask me for a penny box of Beecham's pills, I sell them my own antibilious pills, which are much better than Beecham's."

His Lordship: Worth two guineas a box, I suppose? (Laughter.)

Witness continuing: He added, "If I had advertised sooner, I could have run Beecham off the road." (Renewed laughter.)

This was the plaintiffs' evidence.

His Lordship: Is this case to be fought right out?

Mr. Gatey: Yes, my lord.

His Lordship: I do not know what your witnesses are going to say, and I must keep my mind open until I have heard your witnesses; but it will take a good deal of negative evidence to satisfy me that all those witnesses have come here and deliberately told me what is untrue. It is not a case in which they can very well make a mistake. They came *ad hoc*: their attention was called to the matter, and they say they were going for this purpose, and therefore, having their attention directed to the occasion, did ask for these pills; whereas when your witnesses come, in all probability we shall find that their attention was not called to these specific occasions. They will probably only be able to speak to the practice of the defendant. The defendant may say what his practice is, and what his instructions to his assistants are—viz., that pills should never be sold without calling attention to the fact that the pills were not Beecham's, but antibilious pills. However much I may be impressed with that evidence as to the general practice, it will take a great deal to persuade me that on these occasions the general practice was not departed from. Subject to anything which you may say, I think this is a case for an injunction.

Mr. Gatey said he hoped to be able to call evidence not only as to general instructions, but independent evidence as to certain specific occasions spoken to to-day. The following witnesses were then called:—

Mr. Richard Fisher, examined, said: I have been in business in Preston as a chemist for twenty years. I manufacture and sell antibilious pills, which have a great reputation. I sell Beecham's pills.

Do you sell them in penny boxes?—No, we have not been asked for them except in the instances of which we have heard to-day. Altogether I should think we have not been asked for pennyworths of Beecham's pills a dozen times in twenty years. I remember Mrs. Harding coming twice to my shop. The first time she came she asked for a pennyworth of Beecham's pills. I told her we did not sell pennyworths of Beecham's pills, but said we could sell her a penny box of antibilious pills.

What followed?—She purchased a penny box of pills and paid for them. On the second visit the circumstances were similar, except that I told her Beecham's pills were not sold as pennyworths. I offered her a penny box of my antibilious pills, which she purchased. I saw the witness Topping, but I am not so sure as to what took place in his case. I, however, told him that we did not sell pennyworths of Beecham's pills, and sold him a penny box of my own antibilious pills. The same happened with regard to William Harrison and Edward Lane. In each case I said the pills supplied were our own, and not Beecham's pills. I only remember telling Garner that people were fools for asking for pennyworths of Beecham's pills. The rest of the conversation as detailed by this witness is wholly false. I remember Glover being in the shop when Milligan was there. Glover made the remark that I had not sufficiently explained that the pills which he bought were not Beecham's. I said I told him that they were my antibilious pills.

Have you ever sold as Beecham's pills pills which were not Beecham's?—Never in my life.

Or your assistants?—They never had the opportunity.

Cross-examined: I am so seldom asked for pennyworths of Beecham's pills that my memory is very clear as to what took place on these occasions. It is not the practice in the trade to break the bulk of these expensive medicines and sell the medicines to poor customers in pennyworths. I do not know that it is often done. I remember telling Mrs. Harding on her second visit that she was silly in asking for a pennyworth of Beecham's pills.

Are Beecham's pills antibilious?—No.

But you sold your antibilious pills to Mrs. Harding?

His Lordship: Is it your custom to sell your pills irrespective of the malady of the patient? (Laughter.)

Witness: No. Beecham's pills are antibilious, but are not a specific antibilious pill.

Mr. Kennedy: You were not asked about their being a "specific" antibilious pill.—Mrs. Harding did not say that she did not want the label or the box, but Beecham's pills. I am certain that I told Harrison that the pills which I sold him were my antibilious pills, and not Beecham's.

His Lordship: I am satisfied that the conversation spoken to by Mrs. Harding did take place. That does not affect the other cases, except that if I am satisfied that the thing has happened once, I may be easily satisfied that it has happened in the other cases.

Mr. Gatey: Is your lordship going to grant an injunction on the evidence before the Court?

His Lordship: I do not say that if I were satisfied that this selling of the pills to Mrs. Harding was an accident, that I should think there was sufficient ground for an injunction; but, as at present advised, having regard to the form of the conversation, it would be difficult to persuade me that this was an accident.

After further discussion,

Mr. Gatey called the following additional evidence:—

Mr. Frederick Baucher, examined: I am the defendant's assistant, and have been with him over twelve months. I remember some lady coming into the shop and asking for old-fashioned brown Windsor soap. I heard no conversation about pills.

His Lordship: That is an end to his evidence.

Examination continued: I have heard people come into the shop and ask for pennyworths of Beecham's pills.

His Lordship: Often?—About four or five times. Beecham's are the only patent pills that I have heard asked for in pennyworths.

Mr. William James Helm, examined, said he was a captain in the Naval Reserve, and was a customer of the defendant's. Was in his shop on September 27 last, when a boy came in and asked for a penny box of Beecham's pills. Mr. Fisher said "We don't keep penny boxes. You can have a box of our antibilious pills, which are better than Beecham's." The person who asked for the pills has not been called to-day.

His Lordship: This evidence does not touch any of the cases brought forward to-day.

Mr. Charles Shuttlebottom, wholesale glass, &c., dealer, Preston, examined, said towards the end of September last he was in the defendant's shop, when someone came in and asked for a penny box of Beecham's pills. Mr. Fisher said he did not sell penny boxes, but he could sell him a penny box of his own antibilious pills, which were as good as Beecham's pills, or better. The witness Harrison was the person who came in to buy the pills.

Cross-examined: There was nothing particular to impress the conversation on my mind.

Counsel having addressed the court,

His Lordship said: I am of opinion that the plaintiffs have made out their case, and are entitled to an injunction for what they ask. It seems to me, on the evidence before me, that Mrs. Harding's account of what took place is a true and accurate account. I have no doubt that when she went into the defendant's shop she asked for Beecham's pills, and that on both occasions the pills handed to her were sold to her as Beecham's pills. With regard to the other cases, I have very little doubt that the evidence given is equally accurate. It is true that in most of these cases (in all except that of Harrison, the boots of the hotel) the persons who gave evidence are in the employ of the plaintiffs. At the same time, I have no



reason to doubt the accuracy of their evidence. In these circumstances it seems to me that it has been proved, as alleged in the fourth paragraph of the statement of claim, that the defendant has been in the habit of selling certain pills not manufactured by the plaintiffs and describing them as Beecham's pills. That being so, it is said I ought not to grant an injunction in this case because there is no evidence that the purchasers were deceived. The fifth paragraph of the statement of claim says that the defendant's pills are inferior in quality (with that we have nothing to do) to the plaintiffs', but the purchasers are induced to believe that they are purchasing the plaintiffs' pills. It is said that none of the witnesses who have given evidence were in fact deceived. That is quite true—they were not deceived; but, in my opinion, it is immaterial whether these particular purchasers were deceived or not. Their evidence proves, to my mind, that the defendant is in the habit of selling pills as Beecham's pills which are not Beecham's, and I cannot doubt that, if that is his habit, that those purchasers who do not come for the purpose of proving a case—as these purchasers have done—are and must be deceived if the same course is adopted in their case as has been adopted, in my judgment, in the proved cases; and therefore, I repeat, in my judgment it is wholly immaterial whether they were or not deceived. All that I am bound to find is that the defendant has adopted a practice that is calculated to deceive, and I draw the inference that the general purchasers are deceived. In these circumstances, it appears to me that I ought to allow the injunction asked for here. I ought to say a word about the defendant. I do not think that the defendant is one of those persons who deliberately attempts to defraud the owners of a patent medicine by holding himself out as a dealer in a patent medicine, and then, having so held himself out, substitutes some compound of his own which, to him, is much less costly; and therefore, in that sense, I do not think that this is at all a bad case. It is not a case in which the defendant had been guilty of conduct which is deliberately fraudulent and immoral. What, in my opinion, the defendant has done is this: He sells an antibilious pill of his own, and when customers come in and ask him for Beecham's he, knowing that he has got an antibilious of his own (which, I dare say, he thinks is a much better pill), cannot resist the temptation of selling to the customer, who asks for Beecham's pill, as and for Beecham's, his own pill. The evidence establishes that this is not something which has been done in these selected cases only, but as a habit in his business relations.

Mr. Kennedy: Your lordship then grants an injunction, with costs?

His Lordship: Yes.

#### "RED MEDAL" VARNISH.

MR. JUSTICE ROMER delivered a very exhaustive judgment in the Chancery Division of the High Court on Saturday last, in an action tried before him, between Messrs. Wilkinson, Heywood & Clark, of Caledonian Road, and Messrs. Griffiths Brothers & Co., of Bermondsey. Each party asked for an injunction against the other in reference to varnish and French polish sent to India. Mr. Justice Romer found that Messrs. Wilkinson & Co. had acquired a large trade in India for their French polish, which is sent there packed in the usual form of square cases or tins, having an English label, on which are printed in red two medals. This polish had acquired a high reputation, and became known in the Bombay market to the natives, because of the red medal, as "Lal Mohur" polish, or "Lal Chhap," both names being used, "Lal Mohur" meaning red medal or coin, while "Lal Chhap" is a more general term, and may be translated "red stamp." In the opinion of the learned judge, the defendants had designed a label differing considerably from that of the plaintiffs, but with the object of securing a part of the trade in India which the plaintiffs had acquired for their "red medal" polish. His Lordship granted an injunction against Messrs. Griffiths Brothers & Co., restraining them, their agents, and servants, from selling, or offering for sale, any French polish not of the plaintiffs' manufacture with the label complained of upon it, or so labelled or marked as to induce the public to believe that it is of the plaintiffs' manufacture.

#### EDGE'S BLUE.—MOTION TO COMMIT A RIVAL MANUFACTURER.

IN the Queen's Bench Division, London, on Thursday, the case of *Edge v. Harrison* came before the Lord Chief Justice and Mr. Justice Mathew, sitting as a divisional court. This was an application on behalf of Mr. William Edge, a manufacturer of blue for domestic and dyeing purposes, carrying on business at Burnley, Lancashire, to commit the defendant, Mr. Harrison, who carries on business at Blackburn and also manufactures blue, for contempt of court for disobeying an injunction.

Mr. Bousfield, Q.C., and Mr. Pollard appeared for the plaintiff in support of the motion; Mr. Fletcher Moulton, Q.C., and Mr. Willis Bund opposed it on behalf of the defendant.

Mr. Bousfield said the plaintiff had patented a particular way of putting up his washing-blue in bags with a wooden handle. He had spent thousands of pounds in advertising "Edge's Dolly Blue," and it had become a thoroughly well-known and popular article. Other manufacturers became envious of his success, and amongst them the defendant. A mother-in-law of the defendant's brother was a lady named Edge, and the defendant obtained permission from Mrs. Edge to use her name in connection with his blue, so he not only sold blue in bags, thus infringing plaintiff's patent, but he also called it "Edge's Blue." At the trial the jury found there had been an infringement of the plaintiff's patent, and awarded Mr. Edge 500*l.* damages, and the judge granted an injunction restraining the defendant from selling blue in bags resembling plaintiff's. The defendant had still continued to sell the blue in bags as before, and therefore had committed a contempt of court.

After hearing Mr. Moulton,

The Lord Chief Justice said there had been an infringement of the injunction, but as plaintiff did not press for the imprisonment of defendant the court would order him to pay the costs of these proceedings as a warning.

#### BANKRUPTCY REPORTS.

*Re* CHARLES A. GORTON, 397 City Road, Wholesale Perfumer.

THE first meeting of the creditors under this failure was held on May 1, at the London Bankruptcy Court, before Mr. H. Brougham, Official Receiver. The debtor has filed accounts showing debts 239*l.* 16*s.* 9*d.*, and no assets. The receiving order was made upon a judgment summons obtained by Mr. Keily, the landlord of the premises, who, the debtor alleges, has contributed to the failure by omitting to keep the premises in tenantable repair. Another cause of insolvency is stated to be a loss upon another business carried on by the bankrupt at New Barnet. The proofs tendered to the chairman included one for 61*l.* 10*s.* 6*d.* made by the debtor's wife, who claims in respect of moneys lent to her husband for the purposes of the business. An objection was lodged thereto by a creditor, and the chairman disallowed it, stating that a debtor's wife could not rank in competition with other creditors. Mr. Keily's solicitor was present, and questioned the bankrupt at some length with a view to showing there was no foundation for the latter's allegation as to the untenable condition of the premises. The bankrupt admitted that repairs had been constantly executed, and that, although he had not paid any rent during the past twelve or eighteen months, he had been in receipt of weekly sums from lodgers to whom he had sublet part of the premises. The chairman cautioned the bankrupt that by so doing he was laying himself open to the Debtors and Bankruptcy Acts, and ordered him not to receive any more rent while the proceedings lasted. The bankrupt contended that he was not conscious of having done wrong, and that the money thus received had been his only means of subsistence. In the absence of any offer, the meeting resolved to leave the matter in the hands of the Official Receiver, to be wound up in the usual course of bankruptcy.



*Re* WILLIAM COLE, 268 Manchester Road, Bradford, Druggist and Herbalist.

THE public examination of this debtor was gone into at Bradford, on May 1. The liabilities were 353*l.* 3*s.* 5*d.*, and the assets 113*l.* 6*s.* 5*d.* The report of the Official Receiver (Mr. J. A. Binns) stated that the debtor had carried on business for twenty-eight years, having begun with a borrowed capital of 20*l.* For sixteen years he did well, but in 1875 proceedings were taken by the medical profession against persons who were considered unauthorised medical practitioners. The debtor was one of these, but though the proceedings did not go further than the issue of a summons against him, his income was very materially affected. A few weeks since a fire happened upon the debtor's premises, the damage of which he estimated at 250*l.* He received 155*l.* from the insurance company a few days before he filed his petition, and this he paid to some of his creditors. In answer to the Official Receiver, the debtor said that before the proceedings in 1875 he used the title of "M.D.," adding the letters "U.S.," meaning United States. The degree was granted him by the Pennsylvania University after an examination, though not a very minute one. He paid 11*l.* in respect of the granting of the degree. It appeared that Buchanan, who was one of the professors of the University, had no right to confer a degree, and the American Government punished him for using the post to send them out. When the debtor ascertained this he withdrew the use of the title, and his gross income fell from 20*l.* to 5*l.* a week. Out of the money received from the insurance company he paid 15*l.* to his son in repayment of that sum borrowed some eleven or twelve years ago. The examination was adjourned for proper detailed accounts to be filed showing the disposal of the 155*l.* received from the insurance society.

*Re* DANIEL GRIFFITH THOMAS, 6 Castle Street, Cardigan, Pembrokeshire, Chemist, Druggist, Grocer, and Seedsman.

THIS debtor has filed a statement of affairs showing gross liabilities 1,857*l.* 14*s.* 11*d.* The debtor alleges as the causes of his failure:—"Want of capital, keen competition, interest on borrowed money, bad debts, law costs, and spoiled goods." The following are scheduled as creditors:—

	£	s.	d.
Armitage, Jos., Son & Co., London .. ..	10	0	0
Bennett Bros., Bristol .. ..	10	6	2
Buckland, J. W., & Co., Worcester .. ..	10	2	0
Budgett, H. H. & S., & Co., Bristol .. ..	63	15	10
Carter, Jas. & Co., London .. ..	19	8	10
Coltburst & Harding, Bristol .. ..	66	1	2
Cardigan Steam Packet Company, Cardigan ..	11	16	4
Dight, L. M., & Co., Birmingham .. ..	10	0	2
Davies, Sons & Co., Liverpool .. ..	56	0	0
Davies Bros., Cardigan .. ..	11	8	8
Edward Ringer & Co., Bristol .. ..	21	16	2
Eyre, Jos., & Co., Bristol .. ..	22	10	2
Evans, Lescher & Webb, London .. ..	12	10	3
Evans, Thomas, Cardigan .. ..	82	8	8
Fortman & Co., Bristol .. ..	75	3	5
Galley, A. & J., London .. ..	10	0	0
George, Thos., Cardigan .. ..	16	4	7
Herrings & Co., London .. ..	49	6	6
Ireland, A., Bristol .. ..	23	12	3
Jones & Roberts, Oswestry .. ..	41	11	10
James, John, Cardigan .. ..	13	0	0
Lewis, Capt. Thos., Cardigan .. ..	25	0	0
Lloyd, Miss Sarah, Cardigan .. ..	50	0	0
Maw, Son & Co., London .. ..	29	0	0
Polglase, Wm., & Co., Bristol .. ..	16	4	10
Pritchard, Hy., & Co., Bristol .. ..	29	14	7
Phillips, W., Cardigan .. ..	19	6	6
Rudman, Jas., Bristol .. ..	24	10	3
Summersfield & Co., London .. ..	24	14	9
Sumner, R., & Co., Liverpool .. ..	13	12	0
Sutton, W., & Co., London .. ..	58	6	8
Shute, Jno., & Co., Bristol .. ..	17	5	6
Thornley, Edwd., Bristol .. ..	15	17	8
Thomas, Chris., & Bros., Bristol .. ..	16	8	0
Wellington & Co., Gloucester .. ..	13	19	8
Williams, Jno. .. ..	10	16	0
Ward & Co., Bristol .. ..	81	15	6
Wills, W. D. & H. O., Bristol .. ..	29	0	2
Contingent liabilities—			
Lloyd's Banking Company (Limited), Cardigan ..	465	9	6
Morris, Thos. (deceased), Trustee of, Ollgerran, R.S.O. .. ..	100	0	0
Preferential creditors for rates, wages, &c. ..	9	0	0

*Re* WM. STOKOE WHITE, Manchester, Chemists' Assistant.

THE public examination of this debtor was to have taken place in the Salford County Court last Friday, before Mr. Registrar Smith, but at the hour appointed he had not entered an appearance. The Official Receiver said he did not think the debtor's absence was wilful, but that he had mistaken the date on which he was to be examined. He applied for an adjournment, which was granted.

## Practical Notes and Formula.

### WINDOW-POLISHING PASTE.

	Parts
Prepared chalk .. ..	90
White bole .. ..	5
Armenian bole .. ..	5
Rub together into a smooth paste with	
Water .. ..	50
Spirit .. ..	25

The paste is to be rubbed on the window, allowed to dry, and then rubbed off with cloths.

*Dieterich.*

### MOUTH WASH FOR PREVENTING DENTAL CARIES.

The following is recommended on the Continent at present:—

Tannin .. ..	75 grains
Tincture of iodine .. ..	40 minims
Tincture of myrrh .. ..	40 "
Iodide of potassium .. ..	15 grains
Rose water to .. ..	6 oz.

M.

A teaspoonful, diluted with half a glass of water, to be used to wash the mouth every morning.

### SOLUBILITY OF IODOFORM IN OLIVE-OIL.

THE solubility of iodoform in the fixed oils is stated somewhat variably. Squire gives 1 in 30 of olive-oil; Martindale "1 in 60 of vaseline and oil of almonds, and about the same in fats and other fixed oils." F. Klingmann (*Apoth. Zeit.*, 1891, 70) has recently determined the factor with care. Five grammes of iodoform were added to 30 grammes of olive-oil, the whole been shaken for twelve hours by means of a small turbine. Then it was filtered, and the saturated oil was found to contain between 2½ and 3 per cent. of iodoform. With due allowance for specific gravity, this shows the solubility of iodoform to be 1 part in 39 fluid parts of olive-oil.

### RUSSIAN FURNITURE VARNISH.

	Oz.
Shellac .. ..	30
Colophony .. ..	2
Venice turpentine .. ..	6
Spirit .. ..	90

Mix, and shake occasionally until dissolved; then set aside in a warm place for a few weeks, and filter.

### SPIRIT OF PINE-NEEDLES.

THIS compound makes an agreeable perfume for apartments. Scherer (*Rundschau*) gives the following as its formula:—Mix together 70 grammes of oil of *Pinus sylvestris*, 8 of oil of juniper berries, 5 of oil of rosemary, 2 of oil of lavender, 2 of oil of citron, 1 of oil of bergamot, and 1,500 of alcohol. Macerate in this 200 grammes of young pine twigs; then distil.

### KOLA WINE.

	Oz.
Kola nuts in coarse powder .. ..	1
Sherry wine .. ..	30

Macerate for eight days, and filter.

This wine may also be made with roasted kola nuts, which give a better-tasting preparation, and it is none the worse for the addition of a little sugar.—*Dieterich in "Phar. Central."*



## Trade Notes.

THE DIRECTORS of Liebig's Extract of Meat Co. (Lim.) recommend a final dividend for 1890 of 12½ per cent., making 17½ per cent. for the year.

MESSRS. GEORGE MASON & CO. (LIMITED) have secured the sauce contract for the Royal Naval Exhibition, their "O.K." sauce having been selected by the committee after competition.

MESSRS. S. FIGGIS & Co., produce brokers, have removed from their temporary offices at 3 Mincing Lane, to the new building which has been erected at 44 and 45 Fenchurch Street, E.C.

MR. H. RUBECK, importer of drugs and essential oils, will shortly remove from 14 Mincing Lane, where his office has been located for twenty-seven years, to larger premises, at 59 Mark Lane, E.C.

THE DENTAL VIBRATOR.—Woodhouse & Rawson United (Lim.) have informed Mr. Hodson, of Elland, "that the 'Dental Vibrator' will be ready in three or four weeks. It is the intention of the owners of the patent not to sell the machine, but to let it out at the rate of 10*l.* per annum."

MESSRS. DE CARLE & SON, of Norwich, are making a very advantageous offer in our advertisement pages this week. Any chemist willing to risk 5*s.* 3*d.* can get a sufficient assortment of their solid fruit juices, with handbills, &c., to judge whether the business is worth going into deeper.

MESSRS. J. LANCASTER & SON, of Birmingham, have issued a new catalogue of photographic apparatus, which is an excellent example of the printer's art. The catalogue contains descriptions, illustrations, and prices of most of their popular sets, special cameras, lenses, and appliances. Chemists who deal in these goods would do well to secure a copy of it now that the season for this trade has set in.

THE CHARLES A. VOGELER Co. (proprietors of St. Jacobs oil) probably beat all other advertisers for handbills. They send us samples of seventy-two different designs, an assortment of which they offer to retail vendors who will use them. They also reproduce their book souvenir, which they advertised in this journal last January with such effect that the "enormous demand" resulting has only just been overtaken.

A CIRCULAR issued by Messrs. Elliman, Sons & Co. names three firms who are reported to be selling Elliman's embrocation under the minimum prices. The assistance of wholesale houses is invoked to discover the channel through which the goods are obtained, and Messrs. Elliman intimate that, failing to ascertain this, they may have to reconsider the question of protecting the wholesale dealers. This is not encouraging to those who advocate "systems" of ensuring profits.

A VERY effective and original show-card of Stower's Lime-juice Cordial has been produced by the manufacturers, Messrs. Alexander Riddle & Co., of 38 Commercial Street, E. It represents a nigger who conceals his nakedness with a couple of peacock's feathers on the top of his head and a large placard advertising the cordial in front of the greater part of his body. The foliage of the lime-fruit tree and some other local colouring appear on the background. The firm show us orders which indicate that a very "royal customer" has a supply of this excellent preparation at her various residences.

THE LIQUOR CARNIS Co. (LIMITED) published a coupon in the advertising pages of this journal a fortnight ago, offering free samples of their Caffyn's Liquor Carnis and other preparations to chemists who should apply for them on the coupon. That page of THE CHEMIST AND DRUGGIST seems to have been mutilated to a cruel extent. There is no mistake about the effect of advertising with us when something is offered free. The company inform us that the coupon brought such a large number of applications for their sample cases that they have had to issue a post-card apologising for some delay in despatch. They ask us to add, however, that though they were taken by surprise by the inundation, they

were "nevertheless, very pleased to receive them, and will deal with every application in due course." The Liquor Carnis Co. are also issuing a notice to the wholesale trade, intimating that they now put purchasers of 50*l.* worth of their goods on the same terms hitherto reserved for buyers of 100*l.* lots.

## Personalities.

MR. H. HELBING has left London for a few weeks' visit to Germany. He is to read a paper to the Berlin Pharmaceutical Society on May 14.

MR. WILLIAM SHEPPERSON, of Mount View, Potter's Bar, the managing director of the Liquor Carnis Company (Limited), is rejoicing in the birth of a daughter.

MR. JAMES HARTFORD, of the firm of Schoelkopf, Hartford & MacLagan, New York, who has been in Europe about two months, sails from Liverpool on Saturday in the *Aurania*.

MR. ENOCH PALMER, chemist and druggist, of Grimsby, has been elected an alderman of the borough, filling a vacancy occasioned by the resignation of Dr. Moody, the coroner.

SOME of the friends of Mr. Alexander Bottle, of Dover, the Vice-President of the Pharmaceutical Society, are shortly to present him with his portrait, in recognition of his services to pharmacy, and to celebrate the jubilee of his business career, which was made the occasion of a supper last year.

## NEW COMPANIES.

MICROBE SPECIFIC COMPANY (LIMITED).—Capital of 10,000*l.*, in 1*l.* shares. Objects: To adopt an agreement between E. S. Hall of the one part and the company of the other part, and to carry on the business as manufacturers and dealers in drugs and patent or proprietary medicines, &c. The first subscribers (who take one share each) are:—H. Hall, Overcliffe, Gravesend, gentleman; Mary Hall, Overcliffe, married woman; H. W. Hall, Overcliffe, student; E. S. Hall, Bromley, merchant; R. Matthews, Gravesend, auctioneer, &c.; W. Matthews, Strand, publisher; E. Shrubsole, Windmill Street, Gravesend, dental assistant.

THE SPECIALITY COMPANY (LIMITED).—Capital of 5,000*l.*, in 1*l.* shares. Objects: To acquire recipes and formulæ of medicines, cosmetics, toilet requisites, &c., and to act as patent-medicine agents. The first subscribers (who take one share each) are:—H. E. R. Wolrige, Richmond, surgeon; H. V. Farrel, Richmond, journalist; H. C. Clark, Penge, merchant; W. Morgan, Leytonstone, accountant; T. H. Rees, Cannon Street, accountant; J. E. Figg, Cullum Street, stationer; A. Blackmore, Newington Green, commercial clerk. Registered without articles of association.

METHYLATED FRIAR'S BALSAM.—At Shrewsbury, on Thursday, Harry John Ison, chemist and druggist, was charged with having sold, for internal use, two bottles of friar's balsam, in the manufacture of which methylated spirit had been used instead of rectified spirits. Defendant, who pleaded that the use of methylated spirit was the result of a mistake, was ordered to pay 25*l.*, or go to prison for three months in each case.

AMERICAN PHARMACY IS ELEGANT, they say. There is another side to the picture, and this is how the *Bulletin of Pharmacy* shows it:—"When we read an announcement like this: 'The chemists at Oswestry (England) have decided to close at 8 o'clock P.M., except on Thursdays at 4 P.M., and Saturdays at the usual time, beginning February 2,' it makes American drug-clerks so tired they have to lean against something. Contrasted with the foregoing, we read that a drug-store recently opened in Baltimore will be open from 6 o'clock A.M. till 12 o'clock midnight. This means either work a few clerks to death, or have three relays—not a very likely thing."





**Notice to Retail Buyers:**—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, May 7.

**DURING** the week under review, business in the drug and chemical markets has been very sluggish, and with the exception of two articles, quinine and shellac, in which there is a fair amount of life, we have but few points of importance to comment upon, prices generally ruling in favour of buyers. Among drugs, copaiba balsam and jalap are very firmly held, while raw camphor has sold at prices below those hitherto quoted. French and Italian essential oils keep very firm, while East Indian and Chinese essential oils are generally dull of sale. Cinchona shows an improved value. In chemicals the improvement in quinine is the only item on the side of higher prices. Cream of tartar, citric and tartaric acids are practically unaltered. Sulphate of copper, cyanide of potassium, and antimonial salts are easier to buy. Quicksilver is dearer. The principal alterations on the outside articles may be summed up as follows:—Higher: liquorice-paste, cocoa butter, palm oil, shellac, and Ghatti gum. Lower: tea, cassia lignea, Zanzibar cloves, mace, nutmegs, pepper, Cochin and Jamaica gingers, Carnarba wax, cottonseed and linseed oil, and Aden gum. The Bank rate was raised to-day from  $3\frac{1}{2}$  to 4 per cent. The Eastern exchanges are as follows: Bombay and Calcutta, 1s.  $4\frac{1}{2}$ d. (April 29, 1s.  $4\frac{3}{8}$ d.); Hong-Kong, 3s.  $2\frac{1}{2}$ d. (April 29, 3s.  $2\frac{1}{2}$ d.); Shanghai, 4s.  $4\frac{1}{2}$ d. (April 29, 4s.  $5\frac{1}{2}$ d.). The price of bar silver to-day is  $44\frac{1}{2}$ , against  $44\frac{1}{2}$  on April 29.

**CINCHONA IN SOUTHERN INDIA.**—The *Madras Times*, in an article on the cultivation of cinchona in British India, states there is now (in Southern India) a large acreage of both *Ledger* and *Verde* trees, and annually new land is being opened with these varieties, so that should it not pay to ship *Succirubra*, either original or renewed, the check in the exports of bark would be only temporary. On the Nilgiri hills the crown barks, *Officinalis* and *Condaminea*, have been cultivated throughout, the elevation being too high for either ledger or succirubra. The cinchona-tree has now taken a firm root in Southern India. On abandoned estates trees can be seen holding their own with the rest of the luxuriant vegetation springing up all around. The jungle fires that each hot weather sweep over the hills and through these deserted *totes* cause no greater mortality to the cinchona than to the indigenous forest trees, so that, as years go on, the cinchona will probably become as common in and around the *sholas* of Travancore and Wynad as the rhododendron is on the Nilgiri hills. Unfortunately, the bark, if not harvested within a certain time, is found to contain but a small percentage of workable alkaloids, and the tree when uncultivated is nearly valueless unless the unit ranges high.

**THE AMSTERDAM QUININE WORKS**—The annual general meeting of the shareholders in these works took place on April 30, Dr. J. E. de Vry in the chair. The directors' report shows that although sufficient profit was made during the year to provide for the amount which, according to the statutes of the company, must be written off annually, yet no dividend could be distributed. The output of the factory in 1890 amounted to about 350,000 oz. (9,952 kilos.) sulphate of quinine, and the sales to about 300,000 oz. (8,628 kilos.).

**THE DECIMAL SYSTEM.**—A joint deputation from the Associated Chambers of Commerce and the Decimal Association will be received by Mr. Goschen and Sir Michael Hicks-Beach to-morrow, to urge the Government to take the necessary steps for rendering compulsory the adoption of the metric system of weights and measures, now generally adopted in other countries, as the first stage in the introduction of a complete decimal system. The Decimal Association will be represented by twenty-two gentlemen, including Sir John Lubbock and several other members of Parliament, Professor Gladstone, Sir Philip Magnus, Sir J. Molesworth, Mr. Tom Mann, and others. A petition praying for the appointment of a Royal Commission or Select Committee will be presented to the Chancellor of the Exchequer.

**THE COD-LIVER OIL FISHERY.**—Mr. E. Wilczynski writes from Hamburg:—"In your last issue (May 2) your report on oil (cod-liver) says that the catch of fish during the closing part of the Finnmarken season has been so great as to outweigh altogether the deficiency of the Lofoden fishing, &c. Many of your readers may be misled by this report; so therefore permit me to give you subjoined some statistics which were gathered from the very best authority:—Lofoden and the whole of Norway south of the Lofoden. Result of entire catch.—1891: 32,000,000 fish; 28,000 barrels liver; 25,300 bottles oil. 1890: 48,500,000 fish; 69,000 barrels liver; 26,000 barrels oil. Finnmarken up to May 2.—1891: 4,100,000 fish; 9,387 barrels liver; 100 barrels oil. 1890: 5,900,000 fish; 16,442 barrels liver; 459 barrels oil."

**THE HEAVY CHEMICAL TRADE**—The following figures represent the quantity of chemicals (in tons) exported from the river Tyne during the month of April, 1891—those for the corresponding month of 1890 being added in brackets:—Alkali soda ash, 1,365 (1,175); bleaching-powder, 1,365 (3,278); manna, 442 (579); soda crystals, 770 (2,701); sulphate of soda, 111 (87); caustic soda, 493 (793); other chemicals, 2,017 (864). Total, 6,563 tons (9,477 tons).

**PROFITS IN THE GERMAN ANILINE INDUSTRY.**—The annual report of the working of the Badische Anilin- und Sodafabrik for the year 1890 shows a net profit of 6,404,320m., against 5,866,639m. in 1889. The directors report that business throughout the year has been very brisk. The value of raw materials, especially of benzol and anthracite, remained high. Nevertheless, the factory has been able to make advantageous contracts for these articles. Fuel has also very considerably advanced in price, while, on the other hand, competition compelled the works in many instances to reduce their sale prices for coal-tar dyes. The price of alizarine remain unchanged. Neither the American Customs Act nor the McKinley Tariff Act has at all influenced the course of this industry; on the contrary, some of the dyes hitherto dutiable have now been placed upon the free-list of American tariff. The works have acquired a new process of the synthetic manufacture of indigo, but there is no prospect yet that this will be turned to commercial account. A dividend of 22 per cent. is declared.

**ACID (ACETIC).**—A good demand for consumption is reported in this article at the current quotations of 18s. for 30-per-cent., 19s. 10d. for 33-per-cent. or B.P., and 57s. 6d. per cwt. for glacial acetic acid, 99 to 100 per cent.

**ACID (CARBOLIC).**—The prices which we quoted in our last report still hold good, but we understand that the principal manufacturers are trying hard to sell.

**ACID (CITRIC).**—The market is dull, with sellers at 1s.  $8\frac{1}{2}$ d., but no buyers over 1s.  $8\frac{1}{2}$ d. per lb., if, indeed, there are any at that figure. The quotation for concentrated juice is to-day 26l. 15s. f.o.b.

**ACID (TARTARIC).**—Slow of sale at 1s.  $2\frac{1}{2}$ d. to 1s.  $2\frac{3}{4}$ d. per lb., according to brand. It is stated that a firm of English chemical manufacturers who abandoned tartaric-acid making some time ago, are again about to commence the manufacture of the article. The reduction in the Continental Syndicate price to which we referred last week was to 1s.  $2\frac{1}{2}$ d. per lb. c.i.f. English port.



**ANISE.**—The market is improving somewhat, and as much as 30s. per cwt. is required for fine bold seed. Fair usual *Russian* seed is worth 17s. to 18s. per cwt. Of Chinese *Star-anise* there is very little offering, and we do not hear of much business, but some small sales have been made, it is said, at 100s. per cwt.

**ANTIMONIAL SALTS** are generally casier in sympathy with the reduced prices of antimony. *Tartar emetic*, pure commercial, is now obtainable at from 1s. for crystals, and 1s. 0½d. per lb. for powder. *Sulphuret* of antimony is quoted at 40s. to 42s. per cwt.

**BALSAM COPAIBA.**—The market is very steady, especially for the finer qualities. A parcel of Maracaibo balsam recently imported is said to have been sold at 2s. 4d. per lb., and more money is now asked. *Pará* is quoted at 2s. 1d. to 2s. 2d. per lb. In Liverpool the market is also very firm, arrivals being small.

**BORAX.**—The price remains steady, but the demand is not particularly lively. English-refined borax is quoted at 30l. per ton by the manufacturers, but from second-hand holders it can be obtained as low as 27l. per ton. *Borate of lime*, 11l. 15s. to 12l. 15s. per ton.

**BROMINE.**—There is no change in the quotation, which still stands at 1s. 8d. to 1s. 10d. per lb., according to quantity. *Bromide of potassium* in crystals is worth 1s. 5½d. to 1s. 6d. per lb.

**CALABAR BEANS.**—Very large arrivals in Liverpool continue to meet with a good demand at 4d. to 4½d. per lb.

**CAMPBOR (CRUDE).**—We have to report a quiet market this week. The spot price for *Japan* camphor is nominally 160s. per cwt.; a small parcel of fine *China* camphor just landed, ex *Denbighshire* has been sold at 140s. per cwt. c.i.f. terms, but for May-June shipment business is reported at 125s. for *China* camphor, while *Japan* in that position offers at 127s. 6d. per cwt., c.i.f. terms.

**CAMPBOR (REFINED).**—The prices of the English manufacturers have not been altered. They still offer bells at 1s. 11d. per lb. The German refiners are firm, at 1s. 9½d. per lb. net for prompt delivery.

**CANTHARIDES.**—Mail reports from China, dated April 2, announce that 20 piculs Chinese cantharides changed hands during the latter part of May, at prices ranging from \$36 to \$40 per picul, or about 1s. 2d. to 1s. 3d. per lb. The stock had become almost exhausted, while the quotation had risen to \$55 nominally.

**CARAWAY.**—In steady demand at 20s. to 21s. for Malta, and 17s. 6d. to 18s. for fair to good Mogadore.

**CARDAMOMS.**—The shipments from Ceylon show a falling-off this season, the figures for the periods between January 1 and April 13 being as follows:—1891, 100,040 lbs.; 1890, 129,363 lbs.; 1889, 108,520 lbs.; 1888, 111,984 lbs.

**CHALK.**—French chalk in powder, fine quality for druggists' use, is obtainable at 6s. 6d. to 7s. per cwt.; ordinary qualities are quoted down to 4s. per cwt. The price of *precipitated* chalk has been reduced somewhat, and now stands at 17s. per cwt. for fine quality in bulk. *Camphorated* chalk, 7d. per lb.

**CINCHONA.**—The supply of bark offered at Tuesday's auctions was a moderate one, consisting of:—

	Packages	Packages	
Ceylon cinchona	478	of which	452 were sold
East Indian cinchona	1,188	"	1,183 "
Java cinchona	203	"	203 "
South American cinchona	196	"	29 "
Total	2,065	"	1,872 "

It will be seen from these figures that nearly 91 per cent. of the bark offered was disposed of, a proportion much in excess of the usual percentage. The assortment of bark was not a very superior one, the bulk of the parcels consisting of *Succirubras*, and there were scarcely any good *Ledger* barks. Competition throughout the sales was well maintained, and prices advanced from 10 to 15 per cent. on the previous auction rates, the unit ranging from 1½d. to 1¼d. per lb., the latter price being paid for some of the richer lots of bark.

The following are the approximate quantities purchased by the principal buyers:—

	Lbs.
Agents for the Mannheim and Amsterdam works	94,739
" Brunswick works	92,202
" Frankfort o/M. and Stuttgart works	70,312
" Auerbach works	52,167
Messrs. Howards & Sons	40,570
Agents for the American and Italian works	39,525
" French works	33,035
Sundry druggists	16,847
Total quantity sold	439,427
Bought in or withdrawn	34,050
Total quantity offered	473,477

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it; firms who buy a small quantity of bark by weight frequently take the richest lots, and *vice versa*. The following prices are shown by an analysis of the catalogues to have been paid for sound bark:—

**CEYLON CINCHONA.**—*Original.*—Red varieties: Fair, partly woody and dusty to good bright quilly branch and stem chips, 1d. to 2½d. per lb.; dusty shavings, 3d. to 3½d.; ordinary broken and irregular quill, 2½d.; fair to good bright but dusty root, 2½d. to 3d. per lb. Grey varieties: Ordinary woody and dusty to good strong quilly stem and branch chips, 2d. to 4½d.; small bright shavings, 3½d. to 3½d.; fair to good strong root, 4d. to 5½d.; one parcel, 6d. to 6½d. per lb. Hybrid varieties: Fair stem chips, 2d. to 3d.; root, from 1½d. up to 4d. per lb. *Renewed.*—Red: Stem chips, fair to good bright, 2d. to 4d.; good bright shavings, 3d. per lb. Grey: Fair to good bright quilly stem chips, 4d. to 6d.; shavings, 3d.; one fine lot, 7d. per lb. Hybrid stem chips, 3½d. to 4d. per lb.

**EAST INDIAN CINCHONA.**—*Original.*—Red varieties: Ordinary dusty and woody to good strong quilly chips, 1½d. to 3d.; bold bright, partly mossy ditto, 2½d. to 2½d.; spoke-shavings, 2d.; ordinary to fair root, 1½d. to 3d. per lb. Grey varieties: Ordinary small and weak twigs, 2½d.; fair to good strong quilly chips, 2d. to 4½d., a few lots 5½d. to 6d.; ordinary dark root, 4d. per lb. Yellow varieties: Weak twigs and small woody chips, 1½d. to 3d.; fair quilly branch and stem chips, 4d. to 4½d.; ordinary small to good bright shavings, 2d. to 6½d.; root, 3½d. to 4½d. per lb. *Renewed.*—Red varieties: Fair to good bright chips, 2½d. to 6d.; fine bright shavings, 5½d. to 5½d.; ordinary ditto, 2½d. per lb. Small to good strong quilly grey chips, 3½d. to 8½d.; common to fair yellow chips and spokesavings, 2d. to 4½d.

**JAVA CINCHONA.**—Red varieties: Bold damaged irregular and badly rolled quill, 2½d. to 4½d.; very bold chips and broken quill, 2½d. per lb. Yellow varieties: Ordinary small to good quilly chips, 2½d. to 3½d.; fine strong but partly dusty chips, 4d. up to 7½d.; and root from 3d. to 6½d.

**SOUTH AMERICAN CINCHONA.**—Of 196 packages cultivated Bolivian *Calisaya*, 29 sold (altogether 4,350 lbs.) at 8½d. per lb. for good stout brown quill; offers of 4½d. to 5½d. per lb. for bold chips and broken quill were refused.

The following figures represent the exports of cinchona during the periods between January 1 and April 13 of the last four years:—1891, 1,599,564 lbs.; 1890, 2,187,242 lbs.; 1889, 2,993,960 lbs.; 1888, 3,299,212 lbs.

**COCAINE.**—Again somewhat firmer. Some of the makers quote 22s. as the lowest price, but we think it would be quite possible to buy at 21s. per oz. yet.

**COCHINEAL.**—The market remains exceedingly quiet, and the only business reported is in silver *Teneriffe* at 1s. 1d. per lb. Good rosy blacks are quoted at 1s. 1d. to 1s. 2d. per lb.

**COCOA BUTTER.**—The market is firm, and at the monthly auctions on Tuesday 500 2-cwt. cases of Cadbury's brand sold at ½d. per lb. advance on the April rates—viz, from 12½d. to 12½d. per lb.; 1 lot at 12d. per lb.

**COPPER (SULPHATE).**—Flat and dull of sale at 15s. 6d. to 16s. for usual qualities.

**CREAM OF TARTAR.**—Market rather firm at 97s. per cwt. for best white French crystals. German powder, 98s.



**CUTCH.**—The Liverpool market is described as fairly steady as regards old brands, but new marks are being pressed for sale somewhat freely. The quotations are: for engine, double elephant, and double caglo tablots, 33s. 6d. to 34s.; flag BB, 32s. to 32s. 6d.; MM in slabs, 28s. 6d., and RS in slabs, 22s. to 23s. per cwt.

**FENUGREEK-SEED.**—Morocco seed has been arriving in heavy quantities lately, but the new crop finds a fairly steady outlet at 5s. 9d. to 6s. 3d. per cwt., according to quality. Egyptian seed has sold at 6l. 5s. per ton for arrival.

**GALANGAL.**—Very neglected, and quoted at 14s. to 15s. per cwt. nominally. According to reports from Hong-Kong, dated April 2, the stock of galangal on the market was exhausted, and the price had been advanced to \$2 per picul.

**GALLS.**—The spot market for China galls is dull, but more business is reported for arrival at 53s., c.i.f., for usual shape, and 54s. 9d., c.i.f., for plum-shaped galls.

**GINGER.**—At the spice auctions on Wednesday the demand was slow for both Jamaica and Cochin ginger, and prices declined. Of about 700 barrels *Jamaica* one-half sold at fully 2s. decline: extra bold selected, 103s. to 120s.; and selected, 80s. to 95s.; low middling to good bright bold washed, 60s. to 77s.; and common to good common, 55s. to 58s. 6d. For *Cochin* there was very little demand, and nearly the whole was bought in, only a few packages bright native-cut selling at 35s. per cwt. Fifteen bags *Bengal*, offered without reserve, realised 19s. 6d. In Liverpool there has been a strong demand for African ginger, the new crop having sold freely as high as 23s., and old crop up to 24s. per cwt.

**GUM ARABIC.**—At to-day's auctions the heavy supply of about 3,600 packages of gum arabic was brought forward, of which about one-third was disposed of. Ghatti gum sold at full and occasionally higher rates. Fine Kurrachee amrad also brought full prices, but Cawnpore gum was rather easier, and Mogadore amrad also sold at a decline. Aden sorts, of which the arrivals have been rather considerable this week, sold at about 5s. decline, and scented Bombay gum was also lower. Australian gum very dull of sale. The following prices were paid:—*Amrad* pale pinky sifted, 80s.; fine pale beans, 73s. to 76s.; bold frosted amber, 50s. to 53s.; pale amber, 41s. to 43s.; brown fair, 33s. to 39s. 6d.; grains and siftings, ordinary to fair pale, 10s. to 34s. *Madras*: glassy brown, 45s. *Ghatti*, fine white selected, 55s. to 61s.; selected, 45s. 6d. to 47s.; fair to very good pale, 27s. to 38s. 6d.; fair, 27s. to 30s.; middling brown, 25s. per cwt. *Bombay scented*, reddish, 36s. 6d. to 38s. 6d.; siftings, 15s. to 19s. *Mogador*, dusty pinky small, 36s. 6d. to 37s. *Aden*, fine bold pinky, 85s.; pale pinky, slightly scented, 51s. 6d. to 54s.; small and medium sorts, rather dull, 40s. to 44s. A parcel of 12 bales *Turkey sorts* is just landing, the owners hold it for 10l. per cwt., and are soliciting offers. From Liverpool we hear that some *Niger* gum has been sold at 40s. per cwt., while for 60 bags *Brazilian* from 23s. 6d. to 25s. per cwt. has been paid. There is now very little stock left of either kind. *Senegal* gum (Bas de Fleure) has sold at 69s. per cwt., and prices range from that figure up to 80s. for fine quality.

**GUM SANDARACH.**—Firmly held, with some business at 100s. per cwt. for fine quality.

**INSECT-FLOWERS.**—The market remains quiet at the following quotations:—Closed flowers, 78s.; half-open, 70s.; open flowers, 64s. per cwt., c.i.f. terms.

**IPECACUANHA.**—The market has remained fairly steady since the last auction, in spite of the fact that another arrival has since taken place.

**IRISH MOSS.**—The new crop is gradually arriving on the market and realising high prices, but the demand is not very strong.

**JALAP.**—The market is reported rather firmer, with business at 1s. 3d. per lb. for fair, partly heavy, but slightly-damaged Vera Cruz.

**JUNIPER-BERRIES.**—The Italian market has declined to some extent owing to the anxiety of some holders to sell before the commencement of the hot season. The quotation is now 8s. 3d. to 8s. 6d. per cwt. f.o.b. Leghorn.

**LINSEED.**—The market is firm and scarce for the finer grades. Dutch seed is quoted at 48s. to 50s.; Sicilian at 52s. to 55s., and Russian at 44s. per 416 lbs. In Calcutta seed business is reported at 45s.

**LIQUORICE PASTE.**—Prices have been advanced 2s. 6d. per cwt. by the Liverpool importers, and now stand at 35s. to 37s. 6d. per cwt. for good Smyrna brand.

**NUX VOMICA.**—The arrivals from Calicut and Madras this week total up to nearly 1,700 bags. Fair to fine pale bold seeds are held at 11s. to 14s. per cwt.

**OIL (CASTOR).**—The demand for Italian oil remains good: fine tasteless Italian, 45s. 6d. per cwt. Advices, from Calcutta, dated April 15, report a very firm market for spot and early delivery owing to the absence of available parcels, while for distant delivery the market is easier. The demand for castor oil seems to be largely on the increase, and the trade are hopeful of the future of the article.

**OIL (COD-LIVER).**—The market remains very dull, and non-congealing oil offers as low as 65s. per 25-gallon barrel, London terms, though Norwegian agents quote 68s. to 70s. c.i.f. terms. During the first weeks of April, we hear from Norway, the weather has continued without interruption exceptionally fine, almost summerlike, and the best fishing was for a couple of weeks concentrated in East-Lofoten, where a number of the largest oil-works are located. This, in connection with the immense increase of the catch caused by the introduction, in the latter part of the season, on a large scale of seines (quite a new feature of the industry), has brought the aggregate yield of cod-liver oil up to a quantity not much below the average of the last three years. At anything less than 70s. it does not pay to make cod-liver oil in Finnmarken, and all makers will turn to raw medicinal oil, for which there is a brisk demand at 60s. to 65s. In consequence of the large production of steam-cured oil at Lofoten the quantity of liver available for other oils is only about 42 per cent. of the average, and prices of other fish-oils are therefore keeping very firm; this will help to induce the makers in Finnmarken to abstain from producing any quantity of cod-liver oil as the other oils will pay them better.

**OILS (ESSENTIAL).**—According to advices from China dated April 2, the market for oil of *Star-anise* remained flat at the nominal quotation of \$230 to \$234, at which some 50 piculs were offering. Of *Cassia* oil 50 piculs of secondary quality had changed hands at \$120, and other lots were offering at that figure. For first quality \$130 was asked. In the London market anise oil is quiet and slow of sale; the quotation has declined to 6s. 5d., perhaps 6s. 4d. per lb. *Cassia* oil is so dull and easier to buy, say, at 3s. 4d. to 3s. 7d. per lb., according to quality. In Grasse the work of flower-gathering is very much belated this year. Roses are likely to give a good though late harvest, but the usual reports of a serious deficiency in that of orange-flowers are current. Reports, dated March 10, from the island of Réunion, where a large quantity of *Geranium* oil is now produced, state that early in February the island was visited by a severe cyclone, which has wrought considerable damage, and was succeeded by five weeks of drought, from which all cultures, that of geranium-flowers in particular, have suffered severely. Abundant rains were falling just as the report left, but they came too late to be of any service. The following are the present quotations of oil of *Geranium*:—French oil, twice rectified on rose, 58s. 3d.; Bourbon and Algerian oil, 23s. 6d. per lb. Turkish oil of geranium is worth 7s. per lb. Oil of *Rosemary*, French, according to quality, 1s. 9d. to 3s. 3d.; Dalmatian (Trieste), 1s. 9d. per lb. *Menthol* has been very quiet for several weeks now, the last business reported was at 9s. 4½d. per lb. for good quality, but it would probably be quite feasible to buy at 9s. per lb. now. French *lavender* is advancing in price, and much higher rates are anticipated; fine oil is quoted at 7s. 6d. per lb. at present. *Thyme* oil also firm at 4s. 9d. to 5s. per lb. American oil of peppermint quiet, H.G.H. 12s. 6d. per lb.

**OILS (VARIOUS).**—*Cocoanut* oil: Quiet at the following prices: Fine Ceylon on the spot in pipes, 29s. 6d.; for delivery close at hand, 28s.; far off, 27s. 3d., c.i.f. terms; Cochin oil on the spot, 35s. to 35s. 6d.; and for delivery, 32s. 6d. to 33s., c.i.f. *Cottonseed* oil: This article has been declining in price somewhat lately, and continues to favour buyers; crude is worth 20s.; refined, 22s. 3d. to 22s. 9d.;



Liverpool refined, 22s. 3d. to 22s. 6d.; American refined somewhat firmer, 22s. 9d. to 23s.; Hull crude oil, 19s.; refined, 20s. 3d. per cwt. *Linseed oil*: Also easier at 22s. 6d. to 22s. 9d.; Liverpool export casks, 23s. to 23s. 6d. In *Palm oil* there has been a very considerable improvement this week, and from Liverpool a very considerable business is reported at advancing prices, the market closing strong and in favour of holders; Lagos on the spot is worth from 25s. 3d.; hard oils have sold up to 24s. 6d., and soft oils up to 24s. 9d. per cwt.; in London 27s. is asked for fine Lagos. *Olive oil* is firm and held for high rates, whereby business is impeded; Spanish, 45s.; Mogador, 40s. *Rape oil*: Refined, 31s. 6d.; brown, on the spot, 30s.; in Liverpool French oil may be had at 32s. 6d.; refined Stettin at 34s. to 34s. 6d. per cwt. *Turpentine*: Unaltered at 30s. 3d. *Petroleum*: Flat and without business; American oil on the spot, 5½d. to 5⅞d.; Russian, 4½d. to 4¾d. per gallon.

**OPIMUM.**—There is no alteration in the prices, and the market remains very quiet. In soft shipping a few cases have changed hands at 11s. 6d. per lb., and some cases of fine druggist's opium are also reported sold at 9s. 6d. per lb.

**ORRIS-ROOT.**—The Italian market is practically clear of stock, and prices remain nominal in the absence of business. Finest picked Florentine root is held for 100s. per cwt., f.o.b. Leghorn; Verona root from 47s. 6d. to 57s. 6d. per cwt., f.o.b. Quotations from Italy remain as high as ever.

**POTASH SALTS.**—In Liverpool *Pearl-ashes* are still scarce, but the demand has become sluggish, and the quotation is nominal at 46s. 6d. per cwt. First Montreal *Potashes* rather scarce, with business at 27s. 9d. to 28s. *Bichromate* fairly steady at 3¾d. *Chlorate* ditto at 5¾d. per lb. English *Prussiate* is scarce, at 10½d. for refined. *Saltpetre*: The quotations are—English, 20s. 9d. to 21s. 9d., according to packing; German, 20s. 3d. per cwt. *Cyanide of Potassium*, 30 per cent., is held for 1s. 1d. per lb. for lump, and 1s. 2d. per lb. for sticks. *Permanganate* is quoted by the manufacturers at 60s. for small and 65s. for large crystals, but may be had slightly under these prices from second-hand holders.

**QUICKSILVER.**—On Monday the principal importers advanced their quotation to 7l. 17s. 6d. per bottle, at which figure a good business was done; and on Wednesday the price was further raised to 8l., at which it now stands, second-hand holders quoting about the same figure.

**QUILLAIA.**—A fair amount of business has been done in Liverpool at prices up to 25l. per ton.

**QUININE.**—The market is again decidedly stronger, and shows an advance of about ½d. per oz. since our last report. On Tuesday there were buyers of German in bulk at 10½d. per oz. This morning a sale of 5,000 oz. B & S quinine (second-hand), May delivery, was reported at 10¾d. per oz.; and later on in the day one of 5,000 oz., at 11d. per oz.

**SHELLAC.**—At the auctions on Tuesday the rather moderate supply of 724 cases was offered, of which, with a moderately good demand, 294 sold at an advance of 2s. per cwt. on *Second orange*. *Button lac*, which was poorly represented, also advanced 2s. per cwt. Fair to good bright orange realised 63s. to 65s.; ordinary livery, 58s. to 60s.; common and red, 61s. to 63s. per cwt. For first huttons, 73s. to 75s. was paid; seconds, 69s. to 71s.; and thirds, 63s. to 67s. per cwt. *Garnet lac* was not offered at the auctions, but holders were privately quoting 63s. to 64s. for good free AC, at which prices they subsequently succeeded in effecting sales. Since the auctions second orange (TN) has sold on the spot at 62s., and up to 69s. for August, while it is said that 66s. per cwt. was to-day refused for garnet AC on the spot. "Shellac," says a Calcutta report of April 15, "has a tendency to lower prices: later reports indicate very strongly that the sticklac crop will be a full one, and in consequence there is much more desire to sell; on the other hand, now that March contracts have been provided for, there seems to be no disposition to buy, and we cannot hear that the home markets are sending any fresh orders. Button lac is also easier."

**SODA SALTS.**—The Union prices are unchanged, and a fair business is doing, while second-hand holders are able to sell slightly below the official prices. *Ash*, 1½d. per degree; *Crystals*, 60s. per ton ex ship London; *Bicarbonate* in

kegs, 7l. 5s.; 70-per-cent. *Caustic Soda*, white, on the spot, 11l. 7s. 6d.; and *Nitrate*, 8s. 10½d. to 9s. 6d., according to quality.

**SPICES.**—*Cassia Lignea*: Very dull of sale and tending easier. At the auctions 1 lot sold at 22s. 6d. per cwt. *Cinnamon*: A parcel of 51 hales Ceylon, imported in 1889, was offered without reserve this week, and sold at 7½d. to 8d. for first, and 7½d. for second quality. *Cloves*: Zanzibars were very depressed: nearly 600 bales offered at the auctions were all bought in, 3½d. to 3¾d. for fair to good bright; a few cases new Penang sold at 1s. for fair, and 10 cases medium last year's import at 10½d. per lb. For arrival the market is also dull, and no business reported since the auctions. *Mace* declined in price at the auctions, and sold at 2s. 9d. to 3s. 7d. for good dull to very fine bold white Penang; ordinary red Java at 2s. 3d.; and fair to good West Indian, 2s. 3d. to 2s. 5d. *Nutmegs* also rather easier, both for West Indian and Bomhay. *Black pepper* dull and lower; all offered at the auctions was bought in. A few days ago some Singapore on the spot sold at 4½d. per lb. *White pepper* flat, with sales of fair Lampong at 5d., and Penang at 5½d. per lb. *Pimento* flat, and the whole supply offered at sale was bought in. The following figures refer to the exports from Java of some of the principal kinds of spices during the period between July 1 and February 28 of the following seasons:—

	Pepper	Nutmegs	Mace	Cloves	Cassia
	Pic.	Pic.	Pic.	Pic.	Pic.
1890-91 .. ..	19,793	1,136	335	32	2,271
1889-90 .. ..	48,326	1,042	226	717	1,606
1888-89 .. ..	25,674	4,306	719	450	666
1887-88 .. ..	14,323	1,300	291	103	824
1886-87 .. ..	35,033	585	39	586	4,024

**TONQUIN BEANS.**—Market dull, and demand almost nil. Good to fine Angostura beans are quoted at 6s to 6s. 6d. per lb.; foxy to good black frosted Pará from 2s. 9d. to 4s. 3d. per lb.

#### CHEMICALS IN THE NORTH OF ENGLAND.

THERE is very little variation in the prices of chemicals this week, the market still being in a quiet state.

**BLEACHING-POWDER.**—Steady, at 6l. 12s. 6d. per ton on rails Widnes and St. Helen's, and 6l. 15s. per ton f.o.b. Tyne and Liverpool, in softwood casks; 7l. per ton quoted for hardwood casks, f.o.b. Tyne and Liverpool.

**CAUSTIC SODA.**—Unchanged, at 12l. 5s. per ton for 77-per-cent., net cash, f.o.b. Tyne; 70-per-cent., 10l. 15s. per ton; and 60-per-cent., 9l. 10s. per ton, f.o.b. Liverpool, for large parcels.

**HYPOSULPHITE OF SODA.**—Firm, at 7l. 10s. per ton in 1-cwt. kegs, and 7l. per ton in 5-7-cwt. casks, net cash, f.o.b. Tyne.

**SODA ASH** quoted 1¾d. per degree, less 3½ per cent., f.o.b. Tyne. *Carbonated*: 48-per-cent., 5l. 7s. 6d. per ton; 52-per-cent., 5l. 16s. 3d. per ton; and 58-per-cent., 6l. 10s. per ton, f.o.b. Liverpool. *Caustic ash* about 5s. per ton less.

#### THE DUTCH MARKET.

AMSTERDAM, May 5.

THE cinchona which will be sold here at auction on May 14, 1891, shows the following analyses:—The manufacturing bark contains about 11 tons sulphate of quinine, or 4.03 per cent. on the average. About 20 tons contain 1-2 per cent. sulphate of quinine; 30 tons, 2-3 per cent.; 79 tons, 3-4 per cent.; 60 tons, 4-5 per cent.; 49 tons, 5-6 per cent.; 11 tons, 6-7 per cent.; 2 tons, 7-8 per cent.; 5 tons, 8-9 per cent.; 1 ton contains 13-14 per cent.

**COCOA BUTTER.**—Tuesday's sale of Van Houten's brand gave the following result:—65½ to 63½ to 63½ cents per ½-kilo. All the 68,000 kilos. offered have been sold.



## LONDON DRUG STATISTICS.

THE following figures refer to the stocks of drugs in the port of London on April 30, 1891 and 1890, and to the imports and deliveries during the first four months of the same years.

Article	Stocks		Imported		Deliveries	
	1891	1890	1891	1890	1891	1890
Aloes . . . & pkgs	8,351	8,907	596	2,449	1,780	1,780
" . . . . . gours	1,130	1,272	111	74	156	146
Anise, star . . . ohts	311	71	425	—	181	—
Arrowroot . . . . cks	8,652	11,686	6,963	6,005	6,140	5,530
" . . . . . bxs & tins	1,933	3,590	389	219	660	2,720
Balsams . . . cks, &c.	2,716	2,301	1,006	198	448	341
Bark (Quinchona),						
S. American cases	393	431	18	2	33	3
" . . . . . bls, &c.	25,948	29,275	4,664	2,863	4,917	5,674
E. I., Ceylon, and						
Java . . . . . cks	378	551	329	322	234	172
" . . . . . bls	27,626	27,904	23,219	18,187	16,877	14,359
Borax . . . . . pkgs	261	377	10	21	10	121
Calumba . . . . . "	1,093	1,690	17	161	233	355
Camphor . . . . . "	3,037	765	1,205	3,334	3,766	2,602
Cardamoms . . . ohts	567	1,692	663	1,488	717	1,121
Coco. Ind. bgs, &c.	175	108	—	—	50	64
Cream of Tartar cks	10	14	—	4	13	—
Cnbebs . . . . . bgs	146	161	76	4	173	152
Dragons' Blood ohts	119	127	92	36	67	53
Galls, China, &c. cs	2,130	3,798	666	3,879	1,157	1,060
Trky & Pran. . . sks	2,148	4,061	2,106	2,463	3,445	2,140
Gums—						
Ammoniac pkgs	55	71	11	1	19	21
Animi & Copal						
pkgs	5,672	6,786	4,647	2,615	7,402	5,380
Arabic . . . . . "	15,883	20,422	8,075	9,383	8,627	10,841
Asafetida . . . "	785	299	20	—	65	72
Benzoin . . . . . "	2,889	2,370	1,032	1,393	1,063	1,113
Damar . . . . . "	5,845	6,415	1,564	4,109	2,201	2,891
Galbanum . . . "	39	35	31	24	22	23
Gamboge . . . . . "	40	33	93	59	83	89
Gnalaum . . . . . "	106	28	151	13	76	4
Kino . . . . . "	20	75	4	6	17	48
Kowrie . . . . . tns	760	1,103	965	751	958	997
Mastic . . . . . pkgs	29	16	36	—	25	11
Myrrh . . . . . "	481	304	293	36	236	180
Olibanum . . . . . "	4,740	5,395	2,643	3,761	2,437	2,105
Sandarac . . . . . "	548	658	659	720	314	445
Tragacanth . . . "	5,285	7,071	2,984	1,959	3,129	2,276
Guttapercha . . . tns	2,270	2,385	988	1,447	765	563
*Indiarubber, E. I. tns	322	153	431	149	299	245
Madagascar . . . "	115	32	12	60	103	62
S. American . . . "	41	32	63	74	75	82
African, &c. . . . . "	242	207	139	259	183	332
Ipecac. . . . . cks & bgs	149	213	290	537	392	506
Jalap . . . . . bls	55	75	59	27	114	23
Lao Dye . . . . . ohts	5,061	5,516	—	—	33	183
Nux Vomica pkgs	666	483	885	869	754	853
Oils—						
†Anise . . . . . os	85	27	121	55	39	121
†Cassia . . . . . "	68	41	25	180	112	169
Castor . . . . . cks	135	474	313	414	340	361
" . . . . . os	4,029	4,076	4,123	2,881	1,971	2,021
Coccol-nut . . . tns	1,012	2,015	1,397	1,752	1,462	2,343
Olive . . . . . cks, &c.	697	1,681	1,456	3,213	1,404	2,315
Palm . . . . . tns	8	13	18	27	16	33
Rhnbarb . . . . . ohts	576	671	285	343	549	521
Safflower . . . . . bls, &c.	289	400	—	68	62	121
Sarsaparilla . . . bls	225	283	290	373	369	368
Senna . . . . . bls, &c.	3,189	3,256	971	2,364	1,693	2,263
Shellac, Orange						
chts, &c.	29,227	39,132	10,605	9,765	17,396	11,463
Garnet . . . . . "	3,637	5,495	3,515	75	3,919	4,471
Button . . . . . "	6,202	5,218	4,849	2,335	4,143	3,277
Total cchts, &c.	39,663	49,846	18,969	12,175	25,458	19,211
Sticklac . . . . . cks, &c.	1,206	2,763	119	10	1,184	322
Gambier . . . . . tns	1,033	734	4,138	2,996	4,020	2,957
Cutch . . . . . "	3,301	2,131	1,326	209	940	680
Turmeric, Beng. tns	705	1,208	—	10	222	198
Other varieties, "	380	886	24	53	244	323
Total . . . . . tns	1,085	2,094	24	63	466	521
Vermilion, ohts, &c.	71	17	40	56	4	58
Wax, bees' . . . . . bls & cs	548	296	665	138	937	616
" . . . . . cks & cs	630	820	437	680	691	819
" . . . . . cakes	14	61	6	37	6	—
Japan . . . . . pkgs	722	1,571	75	237	535	311

\* Present stock in Liverpool of Para 1,296 tons, other sorts 595 tons—total 1,891 tons, compared with 1,283 tons in 1890, and 2,404 tons in 1889.

† The stock of anise and cassia oils at Smith's wharf and Brewer's quay are not included in this return.



## Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

## The Acids of Opium.

SIR,—You are right in supposing that I investigated this subject some years ago with as much thoroughness probably as the thing deserves. That Mr. Dohme should be ignorant of previous work on the subject done in this country is not at all surprising. It is the way of foreigners to ignore work done in this country, especially when the paper appears in the Proceedings of our most worthy Royal Society of Edinburgh, as does my little paper (vol. xii. 189). Mr. Dohme has, in many respects, come to the same conclusions as I did, but is evidently wrong in some points. There can be little doubt that the whole of the potassium in the opium is combined with sulphuric acid, consequently there is not enough sulphuric acid to combine with all the morphine, still less with the other bases. Consequently we are led to the conclusion that the morphine exists partly as sulphate and partly as meconate, the other alkaloids mainly as meconates. Let it be borne in mind, however, that opium is not a substance of constant composition. The proportion of sulphuric acid varies greatly—just as we find the proportion of alkaloids to one another varying greatly. Hence it is more than likely that one sample of opium contains the narcotine as meconate, while in another it is uncombined. The subject is pretty fully discussed in the paper referred to, a copy of which I enclose.

I am, Sir, yours very truly,

D. B. DOTT.

104 and 106, South Canongate, Edinburgh, May 6.

## Concentrated Essential Oils.

SIR,—With reference to the paragraph on "Concentrated Essential Oils," which appeared in your issue of March 28, it is stated in the paper read by Mr. Barratt, before the Society of Chemical Industry, that Dr. Tilden, of Birmingham, was the first to point out that in the cases of oils of lemon and orange the terpenes did not contain much flavour, and that it was Mr. Barratt's object to prove that the terpene really contains none.

It will, no doubt, be of interest to many of your readers to know that the manufacture of terpeneless concentrated essential oils is by no means a "new" departure, and that long before Dr. Tilden made researches, Mr. Haensel, of Pirna, Elbe, manufactured terpeneless concentrated essential oils on a large scale.

As far back as 1876, Mr. Heinrich Haensel exhibited at the Centennial Exhibition at Philadelphia a collection of terpeneless concentrated oils, and as a proof of the high interest which science took at this then new departure, I may mention that Court Councillor Professor Dr. Rudolph von Wagner, who, on the part of the German Empire, had been appointed a juror for the chemical section, after his return from Philadelphia in 1876 specially requested Mr. Haensel to submit to him samples of these concentrated oils in order to investigate them thoroughly.

These facts are already pointed out in Haensel's yearly trade-reports for 1877–1879, of which the last copies are in my hands.

In 1881, Dr. Geissler scientifically investigated Heinrich



Haensel's patented essential oils of lemon and orange, and reported on them in the *Pharmaceutische Centralhalle*, of May 16, 1881, No. 21.

Besides, many other eminent authorities, *e.g.* Professor F. A. Flückiger, Dr. Hager, Dr. Schweissinger, &c., have since 1876 investigated the oils, and their reports have been published in the pharmaceutical papers.

The terpenes were certainly known long since, but Mr. Haensel was the first, and is the only one, who proved that oils of lemon and orange contain oxygen, and that the oxygen is the bearer of the aroma.

I am, Sir, yours truly,  
54 Portland Street, Manchester, WM. POPPELREUTER.  
May 6.

### DISPENSING NOTES.

*The opinions of practical readers are invited on subjects discussed under this heading.*

#### Dividing Powders.

33/60. *Phenazone* wishes us to put this inquiry:—"Perhaps some of your practical readers might be able to inform me what percentage of chemists in dispensing prescription powders weigh each one separately; undoubtedly it is the proper way, but I believe the general rule in most establishments is to divide them without weighing each powder."

How the percentage is to be arrived at we do not venture to suggest. We agree with "*Phenazone*" that weighing is the proper way, and it would be interesting to know to what extent this proper way is acted upon. If those who reply would say how many establishments they have been in, and give the number in which weighing is the rule and the number of those where guessing is, we might get some interesting figures. Post-card replies would be most convenient for us.

#### Hamamelis.

SIR,—What should be dispensed for hamamelis in this prescription?—

Hamamelis	..	..	..	..	..	3liij.
Aque ad	..	..	..	..	..	3vj.

M.

Sig.: Sij. mane, meridi et nocte.

I dispensed hazeline. I was going to use ext. hamam. liq., B.P., but found the dose stated was 2 to 5 minims only. I have previously dispensed hazeline in a similar prescription, and heard no complaint. Still, I do not feel sure, and would like your opinion and that of others as to whether it is either of the two I have named or the B.P. tinct. hamam.

Yours truly,

Seacombe, April 16.

E. HINKLEY.

### LEGAL QUERIES.

36/34. *Employer*.—If the boy's hours are 8 A.M. to 9 P.M. it is only by favour if he work for you a quarter of an hour beyond the time. His refusal to do so does not justify his discharge without the usual notice or payment of wages. Employment of a boy (under 18) for the hours you name is, besides, an offence against the Shop Hours Regulation Act which only allows employment of such persons for seventy-four hours a week, including meal-times.

37/28. *Gravitas*.—The advertiser is a registered chemist. We do not admire the label, but it cannot be complained of legally.

29/61. *One of Them*; and 32/58. *Country Chemist*.—See note under Commentary on Medicine Licences. The right of unregistered persons to sell patent medicines containing poisons was discussed last in this journal of November 22, 1890.

36/5. *Perplexed*.—We cannot undertake to make searches in the Trade-mark Register for correspondents, but we should think it not likely that exclusive protection would be given to the title, "balsam of aniseed," simply. You must get authority from the Board of Inland Revenue, and give bonds before you manufacture shellac varnishes with methylated spirit.

32/54. *Alpha*.—Mr. Jahnoke has abandoned one patent for boxes, but holds two others, including, we think, the one you refer to.

### MISCELLANEOUS INQUIRIES.

*Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.*

34/20. *Z. Z.*—Manufacture of "German" yeast. See March 22, 1890, page 415.

32/27. *Cupidus*.—For your Over-heated Hands you may take 5 drops of tincture of belladonna three times a day, an hour after food.

30/59. *Chemicus*.—You cannot quite remove the odour of Sperm Oil. To make it lighter in colour, stir up with a tenth of its volume of sulphuric acid (half strength); afterwards wash with solution of permanganate of potash (acidulated with sulphuric acid), and finally with plain water.

31/61. *Nemo*.—It is a solution of borax that is used for making Snuffless Candle-wicks.

33/9. *F. S.*—Logwood Ink.—Yes, there is a good deal of deposit after straining and filtering the acidified logwood decoction. This can be partly prevented by diluting the acids with 200 parts of water; add the gum to this, set aside to cool, then strain. Dissolve the bichromate in the rest of the water, and add it quickly, and with constant stirring. Bottle immediately, and set aside for a week or two, and strain into fresh bottles. There is a great deal in the manipulation, as you say, and in old logwood.

33/15. *Spes*.—Quinine Pessaries are not used for medicinal purposes. The strength of each is 2 grains, we suppose, the sulphate simply being rubbed up with the basis.

33/40. *Continental*.—English Dispensing Charges.—There is no general price-list in this country, but the pharmacists of several of the larger cities (Manchester, Liverpool, Edinburgh, &c.) have agreed upon lists to suit the respective districts, and some of these are taken as a guide in other parts. Silverlock, Blackfriars, S.E., publishes the Manchester list, and you can obtain a copy of the Liverpool one from Evans & Sons, of that city. One shilling is the published price. Either of these you may take as giving average English dispensing charges.

26/44. *A. E. T.*—The explanation of the means whereby the latent heat of water is ascertained, given in Picton's "Story of Chemistry," seems to be unnecessarily algebraic. The  $x$  is merely the difference between the actual temperature gained by the ice and that which the water has lost. The following may help you to understand the calculation. If 1 lb. of water at 0° and 1 lb. at 100° be mixed, the result is 2 lbs. at 50°. But if 1 lb. ice at 0° be melted in 1 lb. water at 100°, the result is 2 lbs. of water at 10.5°. Consequently the water has lost 89.5°, while the ice has only gained 10.5°, so that 79.5° has been lost, or become latent.



31/34. *C. D.*—(1) **Soluble Essence of Capsicum** is generally made from capsaicin—30 minims to the pint of rectified spirit. (2) **Cylinder Oil** (to solidify on cooling).—You will need to make some experiments in order to produce an article such as you want. The ingredients to use are palm oil (2), heavy mineral oil (3), and household soap (1). The figures indicate parts which you may start with, making the soap into a jelly by boiling in water.

30/38. *A. M. S.*—The following books cover most of the departments which you indicate: Wanklyn's "Water Analysis" (Trübner, 5s.). Allen's "Commercial Organic Analysis" covers alcohols, starches, sugars, &c. (14s.); oils, fats, hydrocarbons, &c. (17s. 6d.); and colouring matters (15s.). These are published by Churchill. For food-stuffs consult Winter Blyth's book (16s.); Wanklyn's "Air and Gas Analysis" (Trübner, 5s.) Hooker's "Genera Plantarum" is published by Williams & Norgate. The price for a set is somewhere about twenty guineas.

30/17. *E. H. C.*—Certificates of the Eclectic Medical College, Pennsylvania, are not recognised in this country, either under the Medical or Pharmacy Act. They do not, accordingly, qualify holders to dispense or sell poisons in this country.

30/43. *Nemos.*—**Dye for Polony Skins**—Aniline colours are used for this, such as Bordeaux red, of which a watery solution of the required strength may be painted on the outside after the skins are filled.

31/24. *Wills.*—According to Griffiths, Blood can be made into manure by adding to it a solution of ferric sulphate ( $\text{Fe}_2\text{O}_3 \cdot 4\text{SO}_3 \cdot 12\text{H}_2\text{O}$ ), which converts it into a coagulum. This is drained, and dried by hydraulic pressure, whereby the tedious evaporation generally used is avoided.

35/11. *Sussex.*—(1) **Logwood Ink**.—Those inks which become black quickly contain chrome alum. The ink to which Mr. John Ing and other correspondents referred is the nearest to Antoine's which we have ever seen, and it takes no longer to darken than that popular fluid. You speak about a blue-black ink: the one referred to is red-black. (2) We presume, from what you say, that the *L'autocopiste* Ink is a lithographic ink, or something of that nature, but we have never seen it. (3) This correspondent informs us that he puts up the following **Children's Cough-mixture**, and recommends it in handbills as containing no opiate. He fancies it wants something more of a sedative nature. What can he introduce, and still agree with the handbill?

Vin. ipecacuan.	..	..	..	3j.
Oxymel scill.	..	..	..	3ij.
Syr. toluat.	..	..	..	3ij.
Aq. chloroform	..	..	..	3ij.
Syr. ribis nig.	..	..	..	3vj.
Syr. simp. vel glycerini ad	..	..	..	3xvj.

M. mx. to 3j. pro dosis.

Bromide of ammonium, say 3ij. to the 3xvj, would be beneficial for the bronchial tubes, and would also act as a sedative. But we should recast the whole formula, omitting the squill, which sometimes causes irritation, and is apt to affect the bladder in young children. The following is our suggestion:—

Ammonii bromidi	..	..	..	3ij.
Aque chloroformi	..	..	..	3iv.
Solve et adde—				
Vini ipecacuanhe	..	..	..	3j.
Syrupi pruni virginianæ	..	..	..	3ij.
" toluat.	..	..	..	3ij.
" ribis nigre	..	..	..	3iv.
" al.	..	..	..	3xvj.
Misce. Dose as above.				

If a more powerful sedative is at any time wanted, add 20 minims of tincture of henbane to each ounce of the mixture.

35/24. *Prescription* sets us the following rule-of-three sum: "Supposing the charge for dispensing a 6-oz. mixture for a patient is one shilling, what would you consider a reasonable price to charge a physician for dispensing 6-oz. mixtures?" This query does not work as a sum in proportion. The charge to medical men should not be based on the ordinary dispensing charges, but on the general character of the medicines prescribed. A charge of 3d. and 4d. for 6-oz. and 8-oz. mixtures is made in some places, and under ordinary circumstances pays.

26/62. *H. & Co.*—The acetic acid is the whole trouble, and custom insists on it being in the formula. See reply 10/50 in our issue of April 4.

35/12. *A. Mishap*—*Leo* writes: "I recently made 7 lbs. of zinc ointment, B.P., and before it had got cold and set a shelf above it suddenly gave way and caused a jar of chloride of lime to fall on to it, breaking the jar in which the chloride of lime was, and so mixing the contents with the zinc ointment. The proportion would be about 2 lbs. of lime to 7 lbs. of ointment. Is there any means of recovering either, or can it be utilised in any way?"

[This is a lesson for "Leo" to utilise in the future. The proper place to make ointments is on a working-bench—not below a shelf. The mixture might now be melted, and while liquid strained from the suspended material, the fat being used as cart-grease. It is unfit for medicinal purposes.]

35/1. *Liq. S.*—**Liquor Sennæ Dulcis**.—See our issue of October 6, 1888, page 496.

34/53. *Calcium* wants to know "if in making **Liquor Potassæ B.P.** the 13 oz. of slaked lime ordered, after being washed as directed, is to be dried and weighed, or whether the whole of the washed lime obtained from the 13 oz. of slaked lime is to be mixed with the solution of potash? Would an excess of lime interfere with the product? How is it possible to syphon off the whole of the liquor? Would it not be better to filter in a Donovan's filter?"

[The Pharmacopœia does not direct 13 oz. of slaked lime to be washed free of chlorides, then dried, and 12 oz. of it weighed, and the context clearly shows that this is not intended. An excess of lime is not detrimental, but an excess of water might be, so it is advisable to let the lime drain well before adding it to the potash solution. It is not necessary to syphon off the whole of the liquor: the value of the little that is left would not in ordinary cases pay the cost of the Donovan's filter. "Calcium" does not appear to appreciate the spirit of the Pharmacopœia, which is this: "If anyone can produce a Pharmacopœia article more expeditiously and cheaply than by the official methods, yet answering the Pharmacopœia characters and tests, why, do it!" So Donovan-filter to your heart's content.]

36/55. *Nem.*—**Blue Enamel for Watch-hands**.—A lac and sandarach varnish coloured with spirit soluble blue aniline is what you require. You must be sure that you have the spirit-soluble dye. Dissolve some of it in spirit, and add to the filtered varnish.

35/20. *F. P.*—**Lime-soap** is the term applied to soap made by Lunge's process from fatty matter with membranes, or unpurified fat or oil. In the case of cocoanut or palm oil water in double the quantity of the oil is added to it, then a fifth of its weight of slaked lime; the whole is boiled, whereby a hard lime-soap is formed, and separates from the solution containing glycerine. This is drawn off. Then a solution of carbonate of soda (in excess of the lime) is added, and, on boiling, the lime-soap is decomposed, a soluble soda-soap separating in flakes on the top, and carbonate of lime is deposited. Separation is assisted by the addition of salt, if necessary.



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We must remind purchasers that we cannot send copies of any of our publications for enclosure. Any of the wholesale houses will supply them. The following firms have already undertaken to stock "Veterinary Counter Practice" and our other manuals, and will supply any of them at the published price:—

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 Lennon & Tehb, Cape Town  
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Prctor's "Pharmaceutical Testing." (176 pages.) 2s. 6d.; by post, 2s. 9d.

### QUERIES AND COMMENTS.

6/591.—Specific Mixture for cough, fever, &c., in sheep. A correspondent sends us a 1½-oz. bottle of this mixture, again without particulars as to how it is sold, or how given, simply that it is a great favourite and a reliable remedy. We make out the mixture to be as follows:—

	Oz.
Spirit of turpentine .. .. .	2
Ipccacuanha wine .. .. .	½
Cochineal colouring .. .. .	½
Golden syrup .. .. .	½
Mindererus spirit to .. .. .	6

Mix.

Dose.—A tablespoonful.

162/8. E. P.—Embrocation Powder.—This is a calamine-coloured powder, "used most extensively in and about

Manchester, and put up in packets by a leading firm of vets for use in broken knees and all kinds of swellings." It is labelled "Embrocation powder. Two tablespoonfuls in a quart of water." Here again the price would have been a useful piece of information, also how much of the powder is in a packet. The following formula provides a similar preparation:—

	Oz.
Alum .. .. .	2
Sulphate of zinc .. .. .	3
Sugar of lead .. .. .	2

Rose-pink, a sufficiency to make the powder the colour of celamine.

The ingredients should be in powder.

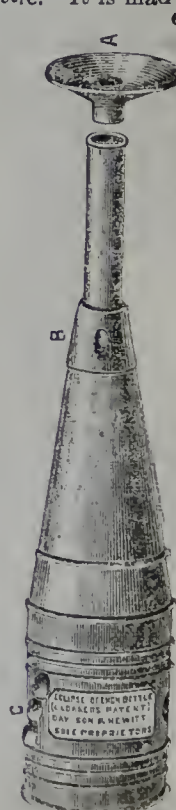
36/31. Country Chemist.—Spirits of tar ordered in the formula for "fly and maggot oils" on page 42 can be obtained under that name from any wholesale druggist.

### THE DOSE OF ALOES.

Mr. Henry Machon, Saffron Walden, writes:—I quite agree with your correspondent with reference to the dose of Barbadoes aloes for carriage and cart horses. When I was an assistant at Newmarket we sold a large quantity of physic paste, and supplied it to the late John Scott, the celebrated Yorkshire trainer (known in racing circles as the Wizard of the North), the leading trainers in the town, the late Count Batthyany, and other well-known turfites. The strength of the ball depends on the method of making the mass. The aloes should be melted; if simply powdered and made into a mass with ginger and common soap the balls are almost inert. At Newmarket 3, 4, and 5 drachm balls were used for racehorses, 6 drachms for carriage-horses. In my opinion a 7-drachm physic-ball (properly prepared) would be of sufficient strength for the most powerful dray-horse in London. The day before giving the physic the horse should be prepared by having bran mash, which with lukewarm water should be continued during its operation.

### A NEW DRENCHING-BOTTLE.

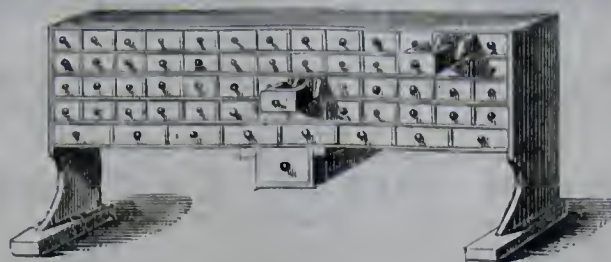
We have received from Messrs. Day, Son & Hewitt a new form of drenching-bottle for horses and cattle. It is made of stout block tin, with carefully soldered joints, and is capable of sustaining the numerous falls and blows which make practitioners prefer horns to bottles. The drenching-bottle for cattle stands 17 inches high, and is shaped much like a hock-bottle. Another rather smaller is supplied for horses and sheep. Some 4 inches down the neck is an opening leading into a tube by which air is conveyed to the bottom of the bottle, thus facilitating the flow of liquid contents from the bottle, thus meeting a difficulty that has hitherto been experienced with all glass bottles, horns, &c., in use. The air-tube being inside the bottle cannot get damaged, and the even flow of the fluid prevents the frequent waste of liquid medicines. On turning the bottle up we find a metal funnel neatly inserted in the bottom—a convenience that every cattle-doctor will appreciate when the broken-lipped jug is brought out to him which is invariably kept at farm-houses for the mixing of "drinks." The only objection we see to the bottle, and it is not a serious one, is the difficulty of spanning it with the hand, as it is 12 inches in circumference. A "grip" is provided at C, which considerably assists the operator in obtaining a firm hold. A drenching-bottle at once so safe, convenient, and durable should sell itself on the counter of country chemists and druggists on market-days. The bottles retail at 4s. each.





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SOME time ago we introduced "Vinolia" Vestal Soap, "Vinolia" Shaving Foam, "Vinolia" Dentifrice (English and American), and we are now putting on the market "Lypsyl," a coralline emollient for the lips. We are advertising these Preparations very extensively, and pushing them with considerable energy in every way, so that the Chemists need have no reluctance whatever about stocking them. A large number of complaints have reached us from the public that they have not been able to get these products from their Chemists. We would, therefore, advise our friends to stock these goods without delay, and to take due means to let their customers know that they have them. Enterprising Chemists have sometimes much to gain by letting the public see that they obtain new goods as soon as they are out. Our Preparations are never a "drug in the market," for we take good care to see that they all move off the shelves.

A word to the wise is sufficient.

Prices of our New Preparations:—VESTAL "VINOLIA" SOAP, 2/6 per Tablet; 3 Tablets in Box, 7/6. "VINOLIA" SHAVING FOAM, 1/6 (put up in Collapsible Tubes, half a dozen in attractive Glass-covered Box). "VINOLIA" DENTIFRICE, English, 2/6; American, 1/6. "LYPSYL," 1/ (one dozen in Glass-covered Box).

**BLONDEAU ET CIE., RYLAND ROAD, LONDON, N.W.**



# DUNCAN, FLOCKHART & CO., EDINBURGH.

## CASCARA SAGRADA CAPSULES.

Each Capsule equal to  $\frac{1}{2}$ ,  $\frac{1}{4}$ , or 1 teaspoonful of Fluid Extract of Cascara Sagrada. They can also be had in combination with  $\frac{1}{2}$  or 1 grain of EUONYMIN. In Boxes at 1/6 and 2/6; 14/- and 24/- per dozen. (Also in Bulk.)

## BLAUD'S PILL CAPSULES.

In 3 sizes, equivalent respectively to 1, 2, or 3 Blaud's Pills.

These Capsules differ from all others, and have advantages which no others possess. They are made from Pure Unoxidised Carbonate of Iron by a special process. They are so prepared that, while they retain indefinitely the full efficacy of fresh Blaud's Pills, they have no tendency to become hard and insoluble by keeping, as the pills often do. They are small in size. Owing to the special process adopted by D., F. & Co., the 3-pill Capsule is hardly larger than a single Blaud's Pill. They are soft and flexible, and much more easily swallowed than pills.

They can be had in combination with Arsenic, Nux Vomica, &c. In Boxes at 1/-, 1/9, and 2/6; 8/-, 15/-, and 22/- per dozen. (Also in Bulk.)

## EASTON'S SYRUP CAPSULES.

Each Capsule equivalent to 20, 30, or 60 minims of Easton's Syrup.

In Boxes at 1/-, 1/9, and 2/6; 16/-, 17/-, and 24/- per dozen. (Also in Bulk.)

## SYRUP. HYPOPHOS. COMP. (Duncan's.)

Some time since we had several samples of well-known SYRUP. HYPOPHOS. COMP. analysed by Mr. D. B. Dorr, F.R.S.E., F.I.C., Ph.C., and in no one case did he find so large a proportion of the active constituents as is found in our preparation by a precisely similar analysis—which analysis is an absolute proof that the proportions of the different ingredients which we state are in our Syrup ARE ACTUALLY PRESENT. We, therefore, submit that from the use of our Syrup the best results may be confidently anticipated.

In proof of our statements we subjoin the report of Analysis referred to.

**NOTE.**—Our Syrup will darken in colour by lengthened keeping; and so must every Syrup which contains a similar proportion of Ferrous Hypophosphite.

"Analysis of SYRUP. HYPOPHOS. COMP. (grains per drachm)."

	Duncan's	No. 1	No. 2	No. 3	No. 4
Hypophosphite of Quinine ..	·25	·14	·11	·69	·12
" " Iron .....	·77	·72	·10	·23	·15
" " Manganese .....	·27	·22	·00	·16	·08
" " Calcinm....	1·04	·00	·83	·01	·15
" " Potassium..	1·00	·68	1·48	·24	·29
" " Sodium ....	1·53	1·45	1·54	·29	·29
The quantity of STRYCHNINE present was not determined. Our Syrup contains $\frac{1}{150}$ grain in each fluid drachm					

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[ESTABLISHED 1820.]

BISMUTH AND PEPSINE ... 5 grs. each to 3j.  
BISMUTH, PEPSINE AND STRYCHNINE... 5.5 &  $\frac{1}{50}$  grs. to "  
BISMUTH, PEPSINE AND QUININE ... 5.5 & 1 " "  
BISMUTH, IRON AND QUININE ... 5.5 & 1 " "  
BISMUTH CITRATE ... 5 " "  
BISMUTH, IRON AND STRYCHNINE ... 5.5 &  $\frac{1}{50}$  " "

[ESTABLISHED 1820.]

IRON AND BISMUTH ... 5 grs. each to 3j.  
IRON, QUININE AND STRYCHNINE 5.1 &  $\frac{1}{50}$  grs. to "  
IRON AND ARSENIC ... 5 grs. & 3 m. (Fowler's) "  
IRON AND PEPSINE ... 5 grs. each to "  
IRON AND QUININE ... 5 & 1 grs. " "  
IRON, QUININE AND PEPSINE ... 5.1 & 5 " "

# GRAN. EFFER. ANTIPYRIN

EACH TEASPOONFUL CONTAINS 8 GRAINS.

ORIGINATED AND INTRODUCED BY CURTIS & CO.

CAFFEINE CITRATE ... 3 grains to 3j.  
CAFFEINE HYDROBROMATE ... 3 " "  
LITHIA CITRATE ... 5 " "  
LITHIA BENZOATE ... 5 " "  
LITHIA SALICYLATE ... 5 " "

SOD. SULPHATE ... 10 grains to 3j.  
SOD. SALICYLATE ... 10 " "  
POTASH CITRATE ... 10 " "  
PHENACETIN ... 5 & 10 " "  
QUIN. SALICYLATE ... 1 " "

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*For Private Formulæ write for  
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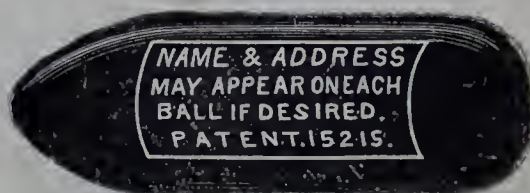
**EXTRACT of Malt and Cod Liver Oil.**

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In bulk, or in amber bottles in cardboard cases, 12/- per dozen.

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(PATENTED.)



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" 3.—Physic Balls	...	...	36/	"
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" 19.—Physic Balls	...	...	48/	"
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" 11.—Tonic Balls...	...	...	20/	"
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WYLEYS & CO. will be glad to prepare Patent Duraplastic Balls from private recipes.



"We have experimentally proved that LISTERINE is a powerful Antiseptic, preventing the development of Bacteria and Decomposition of Vegetable Infusions."—*British Medical Journal*, May 3, 1890.

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**FORMULA.**—Listerine is the essential antiseptic constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis, in combination. Each Fluid Drachm also contains two grains of refined and purified Benzo-boracic Acid.

**DOSE.**—Internally: One Teaspoonful three or more times a day (as indicated), either full strength or diluted, as necessary for varied conditions.

LISTERINE is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use, and to make and maintain surgical cleanliness—asepsis—in the treatment of all parts of the human body, whether by spray, irrigation, atomization, or simple local application, and therefore characterised by its particular adaptability to the field of

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LISTERINE destroys promptly all odours emanating from diseased gums and teeth, and will be found of great value when taken internally in teaspoonful doses, to control the fermentative eruptions of dyspepsia, and to disinfect the Mouth, Throat, and Stomach. It is a

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Its value in this direction having been fully determined by the most conservative element of the Dental Profession.

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**ONLY ONE WINE (CHOICE MADEIRA)  
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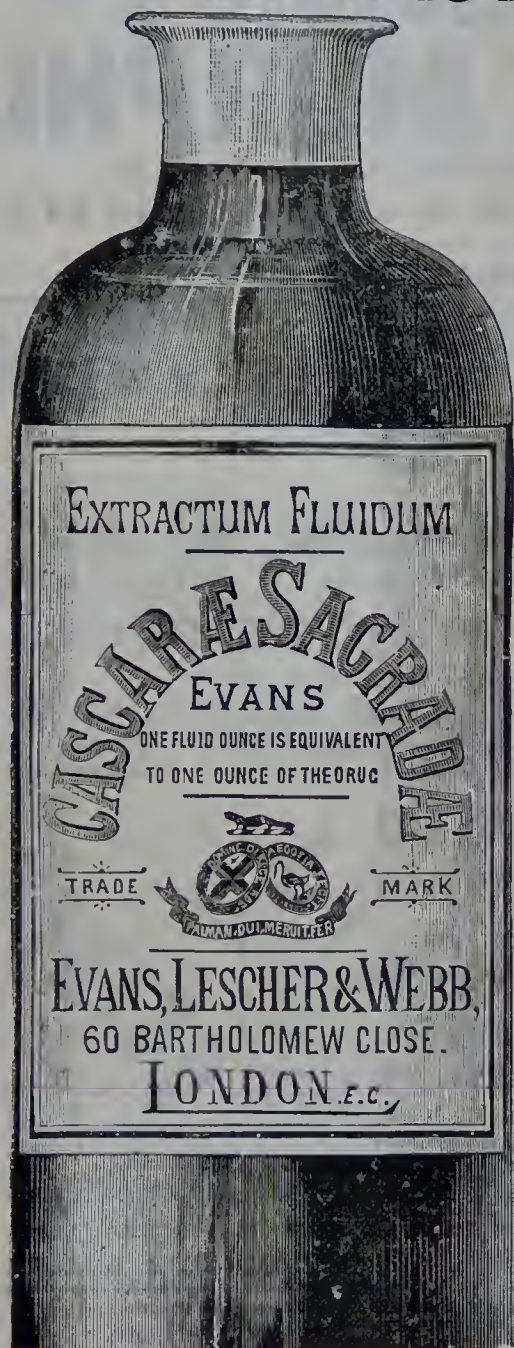
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<i>idem</i> ... ..	..	6 4/9	..
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## LITHOLYDIUM ZACHARIAE

THE RECOGNISED REMEDY FOR

Gout, Rheumatism, Stone, Gravel, and General Diseases of the Kidneys and Bladder.

Retail 10/6 per bottle. 96/ per dozen.

**BARCLAY & SONS, Ltd., 95 Farringdon Street, E.C.**

## BATH AND FLESH GLOVES

(A selection of between 40 and 50 tasteful patterns).

## CHEST PROTECTORS

Of every description.

## CORN AND BUNION PLASTERS.

WHOLESALE ONLY OF

**SOLPORT BROTHERS, Manufacturers,**  
68 Shaftesbury St., New North Road, **LONDON, N.**

## W. SUTTON & CO.

76 CHISWELL STREET, late 10 Bow Churchyard, LONDON,

SOLE MAKERS OF THE

## ORIGINAL BATEMAN'S DROPS & DAFFY'S ELIXIR.

Proprietary Medicines, Perfumery, Mineral Waters Lozenges, Druggists' Sundries, and Miscellaneous Articles.

PRICE LIST FREE ON APPLICATION.

**INTERNATIONAL FISHERIES EXHIBITION, LONDON, 1883.**

# COD LIVER OIL.

The Only **GOLD MEDAL**

For British Exhibitors was awarded to

**T. J. SMITH,**

10 & 11 NORTH CHURCH SIDE, HULL.

Importer of Norwegian, Newfoundland, & other varieties.

Low Quotations on application. Delivered at London or Liverpool.

## SQUIRE-KNIGHT'S EYE OINTMENT

**THE**  
**SURVIVAL**  
**OF THE**  
**FITTEST.**

One of the oldest Eye Ointments in the market. Secured and held a splendid sale without advertising. The present proprietor, W. H. Richardson, F.O.S., Chemist, Dudley, desires to advise Chemists that Squire Knight's Eye Ointment is being extensively advertised. As an increased and extending trade is sure to result Chemists would do well to stock it. At all Wholesale Houses. Correspondence to the Head Depot at Dudley will always receive prompt attention.

## DINNEFORD'S FLUID MAGNESIA



**PERFECT IN PURITY AND UNIFORM IN STRENGTH.**

The most efficacious antacid and mild aperient for Delicate Constitutions, Ladies, Children, and Infants.

OF ALL WHOLESALE DRUGGISTS



# CARBOLIC POWDER

SPECIAL QUOTATIONS FOR 1-TON LOTS AND UPWARDS.

**CARBOLIC PINK POWDER**, 5/-, 7/6, and 10 - per cwt., in bags or casks.

**HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES**, holding 1½ lb. (usual 1/- size), 4/6 dozen.  
Ditto, **LARGE SIZE** (usual 1.6 size), holding about double quantity, 8 - dozen.

**PALE CARBOLIC ACID**, 99 per cent. (No. 5), and **CHLORIDE OF LIME** below market prices.  
**CRUDE CARBOLIC ACID** (Brown), 1 - and 1½ Gallon; also in patent stoppered bottles, labelled.

**SANITARY FLUID** or **CREOSOL** (to be used with 100 parts of water, making a *milky fluid*), half usual prices.

All goods delivered free in London or suburbs, or 'o rail or docks.

THE CHEAPEST HOUSE IN THE TRADE.

**HAMILTON & CO., LIM., WANDSWORTH, LONDON, S.W.**

## LOFTHOUSE & SALTMER, MANUFACTURING CHEMISTS, WHOLESALE AND EXPORT DRUG MERCHANTS HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on Application.

### DEALERS IN PURE CHEMICALS

For Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot, Otto de Rose, and all



Special Agents for Sicilian Sublimed Sulphur in 2-cwt. bags, and Rolled Sulphur in 3-cwt.

Essential Oils; Valentia Saffron; Vanillas; Fruit Essence; Carmine; Aniline Dyes; Bees' Wax, &c., &c.

casks. Most Favourable Quotations can be given on application.

### HALF A CENTURY OF SUCCESS

THE ONLY GENUINE MINT ALCOHOL IS

## DE RICQLÈS' MINT ALCOHOL.

Recommended by the highest Medical Authorities for Indigestion, Stomach Ache, Heartburn, and Headache. It dispels immediately all uncomfortable feeling. Indispensable during the hot weather. An excellent article for the Toilet and Teeth. A grand Preservative during periods of Epidemics.

53 AWARDS, of which 15 are Diplomas of Honour & 14 Gold Medals DEPOTS EVERYWHERE.

Manufactory:—Lyons (France), 9 Cours d'Herbouville  
PARIS, 41 rue Richer.

Insist on the name De Ricqlès.

## UNG. EMOLLIENS (ELTON & CO.)

AN IDEAL OINTMENT BASIS.

UNG. EMOLLIENS is prepared expressly for the Medical Profession, and will be found to far surpass in therapeutic value any previous preparation of the kind brought to their notice.

### UNG. EMOLLIENS ANTISEPTICUM (Elton & Co.)

Prepared by the same special process of manipulation as the UNG. EMOLLIENS, but medicated by combination with a new and specially prepared basic and antiseptic Salt of Zinc and other approved remedies.

The following skin diseases may be mentioned, in which it has proved a most valuable and certain remedy:—Pruritus Ani, Eczema, Acne Rosacea, Erythema, Herpes, Impetigo, Psoriasis, Scabies, Erysipelas, Urticaria, Prurigo, Tinea-Versicolor, or any other irritation of the epidermal surface.

It is perfectly miscible with all fats, oils, and waters, and may be dispensed with any other medicament the physician desires to use in addition to its present constituents.

Prepared only by the Proprietors, Messrs. ELTON & Co., 28 Endsleigh Gardens, N.W.

Sole Wholesale Agents:—

H. GILBERTSON & SONS, 11 St. Andrew's St., London, E.C.



SEQUAH'S OIL.



SEQUAH'S PRAIRIE FLOWER

AND

Sequah's Oil.

Prepared solely by

SEQUAH, LIMITED.



# SHIRLEY'S A1 MENTHOL CONES & OTHER SPECIALITIES!

FIRST OF ALL, a few words on the question of "ORIGINALITY."

**WHO** has done the most to create the trade in **MENTHOL CONES**? Has not the **AI BRAND** led the way? Therefore, as the Proprietor of the A1 Brand, I feel perfectly justified in supplying Cones in any shape or form in which they may be introduced, seeing that all Patterns I have myself put on the market have been studiously copied by others.

## BOXWOOD PATTERNS.

No.			
8P.	6d. Acorn, on foot .....	3/3 doz.	
103B.	4d. Pedestal .....	2/6 "	
113R.	6d. Reversible .....	3/6 "	
111.	1s. Acorn, on foot .....	6/6 "	
112.	6d. Draughtsman .....	3/3 "	
17P.	1s. " .....	5/- "	
9CR.	1s. Reversible .....	4/6 "	
*6.	6d. Pedestal .....	3/6 "	
*14L.	1s. " .....	6/3 "	
*17S.	6d. Draughtsman .....	3/9 "	
*17FP.	1s. " .....	5/6 "	

\* These Patterns have directions printed on the Boxwood.



No. 40.

**THE WATCH SHAPE,**  
Which is really a Draughtsman modified and made flatter. 3/3 doz.  
Special Prices to Wholesale Buyers.

The Charming China Figure  
**JUSTICE** given away with 40/-  
order assorted Cones.

## CHEAPER PATTERNS.

No.			
110V.	1d. Vase shape, 3 doz. on card ....	7/-	GROSS.
110P.	1d. Pedestal " " " ....	7/-	"
114.	2d. Vase, varnished " " " ....	14/-	"
114P.	2d. Pedestal " " " ....	14/-	"
115.	3d. Flat shape " 2 doz. on card ..	20/-	"
109.	4d. Willow Pedestal .....	2/6	doz.
117.	6d. Large " .....	3/3	"
118.	6d. Lighthouse shape .....	3/-	"

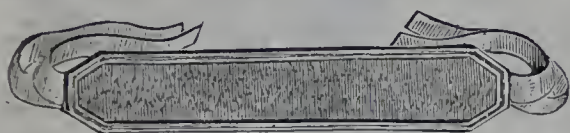


## NEW 15/- CASE.

Anyone ordering 15/- worth of Cones, assorted, other than 1d., is presented free with a most attractive folding Counter Case, with glass front.

HANDY AND PRETTY.

## NEW SEASON'S LOOFAH GOODS.



No. 112.	GLOVE, Loofah and Coloured Turco...	5/6 dozen.
" 116A.	" " " White Turco .....	4/6 "
" 116C.	" " " Coloured Canvas .....	4/6 "
" 130.	BELT " " " Turco .....	9/9 "
" 125.	" " " " larger .....	12/3 "
" 124.	" " " Rough Turco .....	12/- "
" 129.	" Loofah both sides .....	9/6 "

**BEFORE BUYING SMELLING BOTTLES, CHINA BOTTLES,  
TOILET BOTTLES, ODORATORS, &c.,**

**CALL OR WRITE FOR PRICES AND SAMPLES.**

A large quantity to select from.

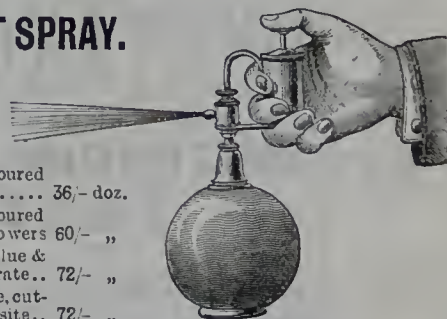
New Patterns constantly added.

## GOOD 1/- SPRAY.

No. 41.	Assorted Coloured Glass, ribbed, ball on top .....	8/6 doz.
" 42.	6d. Spray, assorted Colours .....	4/3 "
" 43.	6d. " " " ribbed .....	4/3 "
" 44.	9d. " " " " .....	6/- "

## NEW CORNET SPRAY.

Being the only one with Pump principle which can be held and worked with one hand.



No. 47.	Assorted Coloured Cracked Glass .....	36/- doz.
" 48.	Cream Coloured Opaque, with Flowers 60/-	"
" 49.	Globe shape, Blue & Gold, very elaborate..	72/- "
" 50.	Diamond shape, cut-glass, most exquisite..	72/- "

## SPECIAL LINE.

No. 1.—Double Ball, Opaque Blue Glass, Pink and Gold Flowers, 28/- doz.

## TOOTH SOAP.—AI.

Splendid 6d. line on Easel Card.  
Sells at sight. 3/9 doz.

**WHEN ORDERING SPECIFY  
AI BRAND.**

## CARBOLIC TOOTH POWDER.—AI.

Very attractively got up in Tin Boxes.

1/2-oz.	2.2 ..	6 doz.	1 1/2 doz.	..	12 doz.	1.9
1 "	3/- ..	" 2.9	" ..	" ..	" ..	2.6
1 1/2 "	3/6 ..	" 3/3	" ..	" ..	" ..	3-
3 "	5/- ..	" 4.9	" ..	" ..	" ..	4.6

## SHAVING AI CREAM.

In Collapsible Tubes,  
attractively carded.  
4 - doz.

## AI BABY SOOTHERS.

4d.—Bone Ring, Polished  
Seamless Teat ..... 2/4 doz.  
6d.—Bone Ring, Polished  
Seamless Teat ..... 3/6 doz.  
1 dozen on a Card.



## ETIENNE FRÈRES' PERFUMERY.

EXQUISITE PERFUMES, ATTRACTIVELY GOT UP.

6d., in Cut Stoppered Bottles, tied with Silk Bow....	4' doz.	1s., in 1 oz. Cut Stoppered Bottles, Lundborg shape	8/ doz.
6d., 1/2 oz. Round Essence, with Sprinkler .....	3/9 "	1s., in 2 oz. " " " "	13/ "
6d., " " " corked and capped .....	3/6 "	1s., in 4 oz. " " " "	24/ "

\* If 3 dozen of this series be ordered, Chemists' own name can be put in full.

**SAMPLE 1d. TUBES, 3 or 6 doz. on card, 8/ gross. 2d. TUBE, 2 doz. on card, 15/ gross.**  
Perfume in Bulk, double ..... 7/ 20 oz.; Triple ..... 10/ 20 oz.

**ARTHUR W. SHIRLEY, 55 FARRINGDON ROAD, LONDON, E.C.**



# DR. PAUL'S HIGH-CLASS MANICURE SPECIALITIES,

Certified as innocuous by eminent English and American Chemists.

## CERIALINE.

For tinting Finger Tips, Face and Lips..... 2/6 .. 18/-

## POUDRE LUSTRALE.

Gives a brilliant shell-like transparency to the Nails 2/6 .. 18/-

## CRÈME CAMÉLIA.

Restores Rough and Chapped Skins to their original softness ..... 2/6 .. 18/-

## NAIL OLEATE.

Preserves and gives a brilliant polish to the Nails, and prevents Hangnails, &c. .... 1/6 .. 10/6

## CLEANSING FLUID.

Instantly removes all stains from the surface and underneath the Nails ..... 2/6 .. 18/-

## FACE AND HANDS LOTION.

Softens the Skin and removes all discoloration .... 4/6 .. 33/-

## EMERY BOARDS.

For bevelling the rough edges of the Nails after use of the file ..... per box 1/- .. 7/-

## ORANGE WOOD STICKS.

A valuable novelty introduced in Dr. Paul's system of Manicure to apply the "Cleansing Fluid" under the free margin of Nails, and thus avoid the danger of scratching with steel instruments, 7/- per doz. bundles.

**CAUTION!**—Dr. Paul's Specialities can be obtained at all first-class Perfumers' and Chemists', but many imitations are offered at inferior Stores

WHOLESALE AGENT

OSBORNE, GARRETT & CO., FRITH STREET, LONDON, W.

# DENTAKON

For Cleaning

## ARTIFICIAL TEETH,

EITHER

Gold, Platinum, or Vulcanite, Deodorizing, Disinfecting, removing Grease, keeping them Bright and Clean as when new.

ALL WEARERS SHOULD TRY IT. Recommended by many eminent Dentists. In Boxes, 1s. 6d., through any Chemist, or Post free from Maker,

C. LOWE, Chemist, Surbiton, S.W.

# OKELL'S ORIGINAL MONA BOUQUET

(First introduced by the late JOSEPH OKELL.)

Registered Trade Mark, "DOUGLAS PIER."

The most popular and best-selling Perfume in the market  
RETAIL PRICES, 1/, 1/9, 3/6, 6/, 7/6, 10/6 per Bottle  
ALSO 3d. SAMPLE BOTTLES.

Shippers and Wholesale Buyers supplied on the best terms by

THOMAS WEST, 1185 & 1187 CHESTER ROAD, MANCHESTER  
STRETFORD,

# Dr. ZIEMER'S ALEXANDRA- DENTIFRICE.

Matchless for the  
Teeth, Gums, and Breath!

Guaranteed Non-  
injurious to the  
Enamel.

Of all  
Wholesale  
Houses.



Prices:

1/3 size 9/-

2/1 .. 15/-

3/6 .. 24/-

per doz.

Show Cards &c.,  
forwarded on application.

B. W. Ziemer & Co.  
143 Cannon St. LONDON, E.C.

# "PRICE'S GLYCERINE"

(Originally introduced in 1855).

Guaranteed free from ARSENIC

and all other impurities.

WHOLESALE FROM

PRICE'S PATENT CANDLE CO.,  
LIMITED,

London, Liverpool, and Manchester.



## VINCENT WOOD'S INVENTIONS.

**TRUSSES.**

Ask your Wholesale Dealer for my quality 1 Specialty Truss in Moleskin and Bazil. Colours—Buff, Dove, and Pink. Per doz. Single, 11/6; Double, 15/6. Sizes to 10 inches. Springs warranted.

**"EUREKA" GALVANO-ELECTRIC BATTERY BELT.**

1 Power. 8 Batteries. 8/6 each.  
2 " 16 " 12/6 "  
3 " 24 " 16/6 "  
SPINE BANDS, as sketch,  
30 per dozen.  
Retail at 5/3 each.

To PREVENT ERRORS mark all orders—

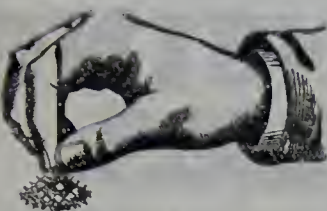
**VINCENT WOOD,**

MANUFACTURER OF SURGICAL APPLIANCES,

3 St. Andrew's Street, HOLBORN CIRCUS, E.C.

Telephone 6757. Established 1840. Telegrams—"ACME LONDON."

Trade Mark.



Registered.

**THE ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,  
12 PAUL MALL EAST, LONDON, S.W.**

**SOLE AGENTS FOR DR. WARLDMONT'S CALF VACCINE.**

Tubes, 3s. each; Half Tubes, 1s. each. Pomade in vials, 6s.  
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 1s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, 45 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appointment. P.O.O.'s (including postage, and crossed London and Westminster Bank) with orders payable to  
**EDWARD DARKE Secretary.**  
Office hours, 10 to 4. Saturdays 10 to 2

## BAILEY'S PATENT

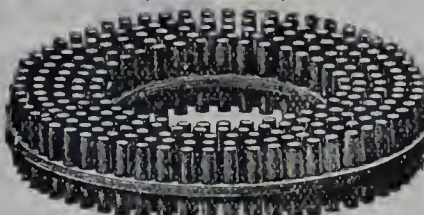
**RUBBER  
"COMPLEXION"  
BRUSH.**

Retails for 3s. 6d. each.  
Price 25s. per dozen.

Used with a little soap in the daily ablutions, the gentle friction of this brush makes the skin beautiful, soft and smooth, effectually eradicating all blemishes, blotches, wrinkles, coarse lines, &c., and entirely superseding the poisonous cosmetics and face-washes now in use. It is simply invaluable for bathing the delicate skin of infants and children.

**BAILEY'S RUBBER TEETHING RING**

(PATENTED)



Is perfectly tasteless, and so constructed that the flat-ended teeth serve to expand the skin of the gums, softening the latter, and thus aiding the coming tooth without irritation. It is made of pure Para Rubber, and entirely supersedes the old-fashioned and injurious articles sold for this purpose, and is highly recommended by leading Physicians and Dentists.

Retails for 5d. each.  
Price 3s. 6d. per dozen.

We are also the Makers of BAILEY'S BATH and FLESH BRUSHES, price 42s. per dozen; RUBBER TOILET BRUSHES, prices 8s. and 17s. per dozen; and RUBBER TOOTH BRUSHES, price 6s. and 6s. 6d. per dozen.

Of all Wholesale Houses, or direct from the Manufacturers,

**DAVID MOSELEY & SONS,**

14 Aldermanbury Avenue, LONDON, E.C.

Ardwick, MANCHESTER; And 57 Miller St., GLASGOW

**COOK'S ANTISEPTIC SOAP**

(THOMSON'S PATENT),

Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.  
(See "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF

**ECZEMA, RINGWORM, SCABIES, FAVUS**

AND OTHER SKIN DISEASES.

See "The Lancet," 12 May, 1888, page 936.

Price in 3-Tablet Boxes, per doz. 12/-; Selling Price, 1/6; in 1/4-gross Boxes, 10/6 per box.

**GOLD MEDAL, PARIS EXHIBITION, 1889.**

Can be obtained through MESSRS. S. MAW, SON & THOMPSON, LONDON, or of

**EDWARD COOK & CO.,** HOUSEHOLD and SOAP MAKERS, LONDON, E.  
TOILET

**ORIZA-PERFUMES**

IN LIQUID AND SOLIDIFIED FORM OF L. LEGRAND, Specially Appointed Furnisher to the COURT OF RUSSIA,

11 PLACE DE LA MADELEINE (Removed from 207 Rue St. Honoré), PARIS.

**UNRIVALLED SWEET PERFUMES**

For all who like Delicate and Concentrated Scents.

LATEST CREATION:

ORIZA-PERFUMES aux VIOLETTES du CZAR.

Inventor and Sole Proprietor of the

**SOLIDIFIED ORIZA-PERFUMES**

(PATENTED),

12 different Scents in the form of Pastils and Tablets.



SOLE AGENTS FOR GREAT BRITAIN AND POSSESSIONS:

**SILBER & FLEMING, Ltd.,** 57 Wood Street, Cheapside, LONDON, E.C.

CATALOGUE AND PRICE LIST FREE ON APPLICATION.



## MANUFACTORY.

"Eclipse" Glass Works,  
Lea Bridge, Clapton, London, E.

Prize Medal, Adelaide Exhibition, 1887.

Award of Merit, Melbourne, 1888.

## OFFICES AND WAREHOUSES.

381-3 KINGSLAND ROAD,  
LONDON, E.

# E. A. HEARN & CO.

## WHOLESALE AND EXPORT GLASS BOTTLE MANUFACTURERS.

Makers of EVERY DESCRIPTION of Glass Bottles, either PLAIN or STOPPERED, in

WHITE FLINT, AMBER, BLUE, MEDICAL GREEN, ACTINIC GREEN, &c., &c.  
OR ANY COLOUR MADE TO ORDER.

FEEDING BOTTLES IN ALL SHAPES,  
PLAIN NECKS OR SCREW STOPPERED.

**SPECIALITY.**—First-class Quality at Reasonable Prices.



TRADE MARK.

# DISPENSING BOTTLES.

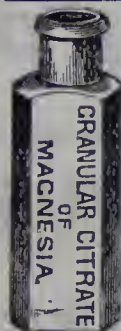
FLATS, OVALS, & SQUARES.

Without exception the prettiest Tinted Bottles in the Market  
Equal to the best make. Prices moderate.

**JOHNSEN & JÖRGENSEN**

5 SAVAGE GARDENS, LONDON, E.C.

OUR  
SPECIALITY.



**GLASS BOTTLES**  
OF THE  
**BEST QUALITY.**

DISPENSING, PICKLE, SAUCE, OIL,  
MINERAL WATERS, &c., &c.  
SAMPLES AND PRICES ON APPLICATION.

**E. YOULDON,**  
EAST LONDON GLASS BOTTLE WAREHOUSE  
36 to 40 Great Garden Street, Whitechapel,  
LONDON, E.



## GARDNER'S PATENT COMBINED 'RAPID' SIFTER & MIXER



FOR HAND OR POWER.

Reduces lumpy powders,  
sifts and mixes faster  
and makes a more perfect  
blend than any Machine  
in the Market.

Send for full particulars to

**WM. GARDNER,**  
ENGINEER, &c.,  
**GLOUCESTER.**

Capacities from 15 to 300 lbs. at one mixing.

## DISPENSING BOTTLES & PHIALS. REDUCED PRICES.

3 and 4 .. ..	6 and 8 .. ..	12 .. ..	16 ounce.
7/6 .. ..	8/6 .. ..	12/- .. ..	16/- per gross.
CRYSTAL (BLUE TINTED).			
3 and 4 .. ..	6 and 8 .. ..	12 .. ..	16 ounce.
9 .. ..	10/- .. ..	14/- .. ..	18/- per gross.
WHITE PHIALS.			
3/8 .. ..	1 .. ..	1 1/2 .. ..	2 ounce.
4 .. ..	4/- .. ..	4/9 .. ..	5/6 per gross.
WHITE PHIALS (SUPERIOR QUALITY).			
1/2 .. ..	1 .. ..	1 1/2 .. ..	2 ounce.
4/3 .. ..	5/3 .. ..	5/9 .. ..	6/3 per gross.

## I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS,  
25 FRANCIS STREET, Tottenham Court Road, LONDON.

BANKERS, LONDON AND WESTMINSTER BANK.

ESTABLISHED UPWARDS OF 50 YEARS.



No. 1855.  
1891. —ALL PRIOR PRICE LISTS WITHDRAWN, 1891.

## WHOLESALE TRADE PRICE LIST

# BREFFIT'S CAPPED OIL AND ETHER ROUNDS,

Hand-made, White Glass.

	20 oz.	30 oz.	40 oz.
ACID or ETHER ROUNDS, STOPPERED and GLASS CAPPED.	23/-	27/6	34/6
OIL BOTTLES, STOPPERED FUNNEL STOPPERS and GLASS CAPPED.	23/-	27/6	34/6
OIL BOTTLES, STOPPERED FUNNEL STOPPERS, and with TIN CAPS.	23/-	27/6	34/6
	20 oz.	30 oz.	40 oz.

## DARK BLUE SYRUP BOTTLES,

Hand-made, with loose Plug Stoppers.

20 oz., 8/6

30 oz., 10/6

40 oz., 14/- per dozen.

## HAND-MADE WHITE GLASS SHOP ROUNDS

SIZES	2dr.	$\frac{1}{2}$	1	1 $\frac{1}{2}$	2	3	4	6	8	10	12	16	20	24	30	32	40	60	80 oz.
UNSTOPPERED, NARROW or WIDE.	7d.	7d.	9d.	9d.	11d.	1/3	1/4	1/9	2/	2/3	2/6	2/9	3/3	3/6	4/	4/	5/	6/3	8/6
NARROW, GROUND GLASS STOPPERED.	1/3	1/5	1/6	1/9	1/9	2/	2/3	2/8	3/6	3/9	4/	4/6	5/3	5/6	5/9	5/9	6/9	8/	10/6
WIDE, GROUND GLASS STOPPERED.	1/6	1/9	1/10	2/	2/	2/3	2/8	3/3	4/	4/3	4/6	5/3	5/9	6/	6/3	6/3	7/3	9/	11/6

Prices per dozen, Net Cash, Delivered Free, London.

GOLD LABELLING on above, 3/ per dozen. ENGRAVED LABELS on above, 4/6 per dozen.

SHOW CARBOYS AT WORKS PRICES.

Offices & Show Rooms: 83 UPPER THAMES STREET, LONDON  
(Adjoining Cannon Street, S.E., and Metropolitan Railway Stations.)



# S.V.R., B.P.

We wish to draw the attention of Chemists to the excellence of the spirit we supply for pharmaceutical purposes. We have devoted great care and attention to this branch and have made it a leading line.

That our efforts in this direction have been appreciated is proved by the number of unsolicited testimonials we have received from nearly every town in the country, of which the following is a specimen:—

GENTLEMEN,—

Please send 5 gall. 56 o.p. as before. I have pleasure in saying I have always found your spirit answer all tests, which is more than I can say of all I have had from different places, and also to be practically free from odour.

Messrs. Stephen Smith & Co.

The Pharmacy, Morecambe.

Yours faithfully, JOSH. N. CUTTS, B.Sc., F.C.S.

In consequence of the increase in the spirit duty our prices will be—

S.V.R. 56 o.p. ... 19s. 7d.

CASH WITH ORDER.

Double Distilled, 56 o.p. ... 19s. 11d.

REDUCTIONS FOR QUANTITIES.

## SPECIALITY FOR PERFUMERY.

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

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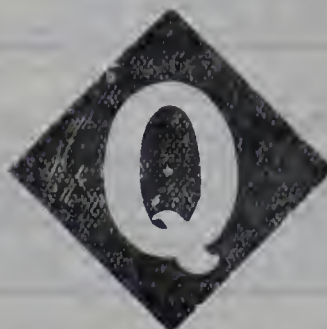
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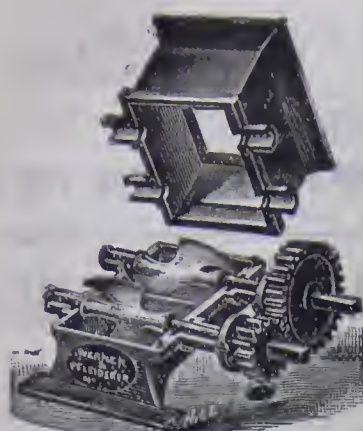


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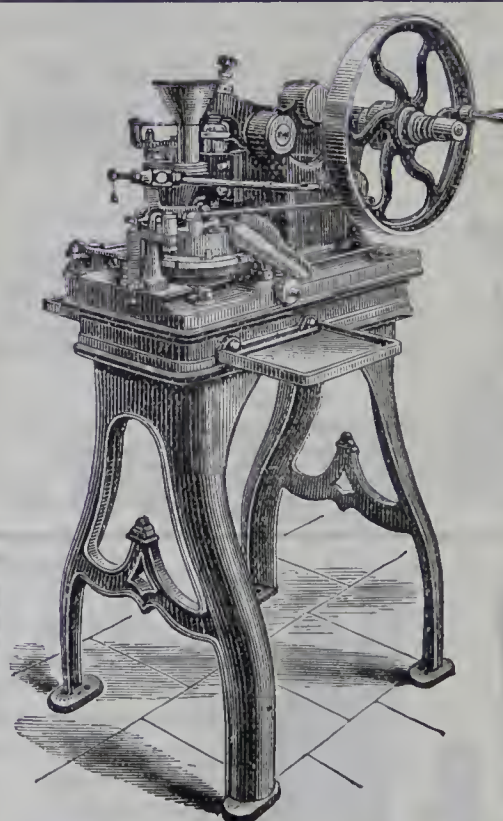
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